

MX PEACEKEEPER MISSILE PROGRAM

HEARINGS BEFORE A SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE NINETY-NINTH CONGRESS FIRST SESSION

Printed for the use of the Committee on Appropriations

SPECIAL HEARING
ARMS CONTROL AND DISARMAMENT AGENCY
DEPARTMENT OF DEFENSE
Air Force
Joint Chiefs of Staff
Secretary of Defense
GENERAL ACCOUNTING OFFICE



5181-39

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MX PEACEKEEPER MISSILE PROGRAM

THURSDAY, MARCH 7, 1985

U.S. SENATE,
SUBCOMMITTEE ON DEFENSE,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:06 p.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Hatfield, McClure, Kasten, D'Amato, Rudman, Proxmire, Chiles, Sasser, and Mattingly.

DEPARTMENT OF DEFENSE

SECRETARY OF DEFENSE

JOINT CHIEFS OF STAFF

STATEMENTS OF:

HON. CASPER W. WEINBERGER, SECRETARY OF DEFENSE

GEN. JOHN W. VESSEY, JR., USA, CHAIRMAN, JOINT CHIEFS OF STAFF

OPENING STATEMENT OF SENATOR STEVENS

Senator STEVENS. Mr. Secretary, we are glad to see you here, and General Vessey. We are going to begin the first of our sessions on the Peacekeeper Missile Program. We are asked to carry out the process that was contained in the continuing resolution last year. As we all know, the purpose is to approve the obligation and expenditure of \$1.5 billion available this year, in fiscal year 1985, for the continued production of the MX.

CONGRESSIONAL ACTION ON USE OF FUNDS

Last year's congressional action prohibited using any of those funds until two requirements were fulfilled:

One, the President was required to submit a report to Congress certifying that future production of the MX missile is in the national security interest; and

Two, both Houses of Congress approve two separate resolutions releasing the funds for procurement of 21 operational MX missiles.

ACTION ON RESOLUTIONS

The President submitted his report on March 4. Two resolutions have been introduced in the Senate and in the House. The question

now before our committee is whether the resolution within our jurisdiction should be reported to the Senate.

The Senate Armed Services Committee is going through the same procedure with regard to the resolution that is before it that Senator Goldwater has introduced. I am informed that the authorizing and appropriating committees in the House are following a similar procedure.

You are going to be like a cat on a hot tin roof, the two of you, before we are through.

All of these resolutions must be reported by the respective committees within 15 days or the committees will be discharged and the resolutions could be brought up on the floor of each House.

There is a fast track provision in the bill from last year which will mean that the resolutions will receive prompt consideration without amendment, and they will be subject to an up or down vote. The failure of Congress to approve either of the resolutions in either House will mean a failure of the authorization for the expenditure of these moneys.

We expect that the outcome of this committee's deliberations will be such that they will have considerable influence on the outcome of this. I am sure you realize that we probably have the last vote, Mr. Secretary, at least it looks that way. I understand that the House may be trying to structure it so that we vote first on the Senate resolution.

I want to welcome you here. I want to put my statement in the record. I am pleased to have been able to introduce this resolution at the request of the President.

Although this is the Defense Subcommittee, all members of the full Appropriations Committee have been requested to attend if they wish to do so. I acknowledge the presence of our distinguished chairman, the Senator from Oregon, Mr. Hatfield.

INTRODUCTION OF WITNESSES

Our witnesses today are the Secretary of Defense, Casper Weinberger, and Gen. John Vessey, the Chairman of the Joint Chiefs of Staff. Tomorrow we will hear from Mr. Paul Nitze of the U.S. Arms Control and Disarmament Agency, and Gen. Bennie Davis, Commander in Chief of the Strategic Air Command, along with a GAO witness if that is required.

Let me yield to the chairman of the committee, if he has any opening statement.

Senator HATFIELD. I have no statement. Thank you, Mr. Chairman.

Senator STEVENS. Does any other Senator wish to make an opening statement?

[No response.]

Senator STEVENS. Very well, gentlemen, we leave it up to you. We will print your statement in full in the record, and you may present them in any way you wish.

STATEMENT OF HON. CASPAR W. WEINBERGER

SOVIET VIOLATIONS OF SALT I TREATY

Secretary WEINBERGER. Thank you very much, Mr. Chairman and Senators. It is a pleasure to appear before you to discuss this critically important subject. We appreciate very much the opportunity for the hearing, and also your own action, Mr. Chairman, in introducing in hearing the resolution of approval.

In 1972, the United States and the Soviet Union signed the SALT I Treaty. We were in the process then of completing the replacement of 550 Minuteman I with the Minuteman III. The Soviets were completing the deployment of the SS-9's and the SS-11's. Many in the United States believed that the treaty and the impending terminations of both sides' ICBM programs were at hand, and that augured an era of nuclear stability.

In several years, unfortunately, it became apparent that the Soviet leadership was not satisfied with that situation. New Soviet missiles were being developed. New techniques for silo hardening were being explored. We began debating possible responses.

By the mid-1970's, the Soviet missiles were being flight-tested extensively, and we continued to debate. By 1976 and 1977, the Soviets began major deployments of three types of new fourth generation ICBM's—the SS-17, SS-18, and SS-19. These missiles were housed in newly modified silos which were far harder than the Minuteman silos, and which were quite able to withstand retaliation by our ICBM force. With the exception of a very small program to replace the warheads of about half of the Minuteman III missiles, we continued to debate possible responses.

Today there are now 808 SS-17's, SS-18's, and SS-19's, with almost 6,000 new warheads, that are already deployed. Their fifth generation is now being flight tested, and our response, the MX, is still in the very beginning flight-test stage after 12 years of, as yet, inconclusive debate.

SUCCESSFUL TESTING OF PEACEKEEPER

Our Peacekeeper flight tests have been highly successful. We are achieving accuracies with them far better than even our stringent design specifications. And yet, despite this, and despite our cumulative investment of almost \$13 billion in the Peacekeeper Program, despite the Soviet strategic programs, some still counsel that we should stop preparation of deploying this missile, and we should continue to debate what to do.

Mr. Chairman, there should have been by now enough debate for everyone. Now the earliest IOC for this much needed modernization of our triad is December 1986, and I think that we cannot afford to wait any longer. Our delay has contributed to the current strategic imbalance we now face and which we must correct.

DETERRENCE POLICIES

For deterrence to remain effective, we must make certain that the Soviet leadership understand that our retaliation will raise the cost of their aggressiveness to unacceptable levels. It is not an easy

task. When we were congratulating ourselves in the 1970's that we had persuaded the Soviets to accept that concept, that nuclear war was not winnable, in that same period the Soviet leadership was embarking on a massive program to undercut our deterrence and demonstrating that they believe, totally contrary to us, that they think a nuclear war not only can be fought, but it can be won. We don't think so. We know it must never be.

SOVIET AIR DEFENSE SYSTEM

The Soviets modernized and expanded what was already the world's largest and most sophisticated air defense system, they sought thereby to blunt the bomber leg of our triad. They began building a limited first-strike capability in their SS-18's and SS-19's, and they sought then to develop the ability to preempt the U.S. retaliation.

By hardening missile silos and launch control facilities, and by proliferating, dispersing, and hardening their command and control, and government operations, they have sought thereby to create an ability to absorb a retaliatory blow and nevertheless maintain political power and military control, and all of the supporting essentials that are needed as part of that. We have to note also that they spent a great deal of money on civil defense. We also have to note that they have a refiring capability with their missiles which we do not.

Because we have failed to respond to all of those efforts, the Soviet leadership convinces itself that the risks inherent in threatening, or actually using, military force against us or our allies are reduced to what would be an acceptable level to them, then deterrence has either failed or would be jeopardized.

REBUILDING OF TRIAD SYSTEM

We are now responding, fortunately. We are rebuilding our triad. We have the air-launched cruise missiles on the B-52's and the first B-1B was delivered last year. The whole completion of that program is in this year's budget. They are coming in on time, on schedule, really, and below budget. We have corrected all the problems in the Trident submarine, and we have a steady effort underway there that is bringing in at least one submarine a year, and sometimes a little better. We have a better missile that will be ready by 1989.

However, the triad needs three legs. A two-legged stool is not of much use. We don't yet have a modernized ICBM force. We do not yet have an ability to threaten prompt and credible retaliation against the hardened Soviet assets, and that is the essence of deterrence.

SCOWCROFT COMMISSION REVIEW OF U.S. DETERRENCE

It was in the light of these very somber facts that the President's Commission on Strategic Forces, the Scowcroft Commission, reviewed the whole deterrent, and it was in light of these facts that that Commission proposed that we continue doing just what we were doing, but that we add to it a small single-headed mobile mis-

sile, if possible. That is a phased plan, and it is a modernization of the ICBM's, and it is vital that we continue along those lines.

There is no other system that is available in the near term, none that can demonstrate as convincingly or as effectively that the Soviet leadership cannot expect to win in a nuclear conflict despite all they have done in hardening and proliferation, and fielding two new generations of missiles while we are still debating.

We also need the Peacekeeper Program, MX, in order to have a successful small, single-warheaded ICBM. Many of the important components of the new small missile will be derived from the MX, including its guidance and control hardware, computer components and software, ordnance support systems, and warhead.

Our plans for evolving into a more stable strategic environment, not only for the late 1980's but the 1990's, depends crucially on the actions that the Congress takes this year. Furthermore, the MX will encourage the Soviets, we are sure, to begin to reduce their reliance on large, heavily MIRV'd ICBM, and that will contribute to both the survivability of our new small ICBM, and that will further increase the stability in the strategic area that we all need.

RESUMPTION OF GENEVA TALKS

We are about, of course, to resume, as the committee knows, negotiations with the Soviets in Geneva. We are seeking mutual, significant, and verifiable reductions. Secretary Shultz has indicated many times in the past that a continuing Peacekeeper Program is vitally important to our ability to achieve the deep reductions we seek.

There are two obvious and crucial reasons for this. If we indicate that we are not going to correct our current deficiencies, the Soviets have little incentive to negotiate seriously. In other words, if they see, and they are very practical people, that they can get us to reduce our plans or our missile systems without doing anything on their side, they are obviously going to pursue that course. They will have no incentive to make any reductions because they will see that America will make its reductions unilaterally, and indeed without any charge to the Soviets.

Unmistakably, we would convey a message to the Soviet leadership that we lack the will, the resolve, to achieve our goals in the world. There would be no reason then for them to believe that we are committed to reducing arms, or maintaining a balance of power in the absence of reductions. The Scrowcroft Commission addressed this point specifically by saying:

It is illusory to believe that we could obtain a satisfactory agreement with the Soviets limiting ICBM deployments if we unilaterally terminated the only new U.S. ICBM program that could lead to deployment in this decade.

To succeed at Geneva, we must show that we have the same steadfastness and determination which encouraged them to change course and return to the negotiating table after they had walked out. Their eyes, I think it is fair to say, are on us today.

CONCLUDING REMARKS

Finally, I would like to conclude by looking a bit further into the future. As the committee knows, the President, General Vessey,

and I are committed to exploring new in research programs the new technological possibilities which could permit us to eliminate the threat posed by ballistic missiles of all ranges. We are encouraged by the results of our initial studies and of our research to date, that is into the strategic defense initiative. We are optimistic that these technologies can be developed, and that fully effective, cost-effective, and survivable defenses can be created. But while we perform that research, we need to continue effectively to deter attack by regaining the offensive deterrence strength we need.

Once a decision to pass beyond research to development is made, we will still need to deter effectively. And, as defensive systems are deployed over a period of years, as we hope they can be, we will still need to ensure that this so-called transition period is a stable one.

A strong and modern triad will provide the deterrence we need to move down this road. A strong and modern triad must have a strong ICBM leg, and a strong ICBM leg must include 100 Peacekeeper missiles. It is the only thing that has the accuracy, the yield, the years of development behind it, \$13 billion invested into it, that will give us the kind of capability we need. So I urge this committee to take the lead in moving the Congress to remove the fences, the restrictions placed on the procurement funding that was voted last year, and to approve our request for the 1986 Peacekeeper production.

Mr. Chairman, I appreciate the opportunity to make this statement.

Senator STEVENS. Thank you, Mr. Secretary.

[The prepared statement of Secretary Weinberger follows:]



DEPARTMENT OF DEFENSE

PREPARED STATEMENT OF HON. CASPAR W. WEINBERGER
SECRETARY OF DEFENSE

MR. CHAIRMAN,

IT IS A PLEASURE TO APPEAR BEFORE THE COMMITTEE TO
ADDRESS THE SUBJECT OF ICBM MODERNIZATION.

IN 1972 THE UNITED STATES AND THE SOVIET UNION SIGNED
THE SALT I TREATY. WE WERE IN THE PROCESS OF COMPLETING
THE REPLACEMENT OF 550 MINUTEMAN I MISSILES WITH MINUTEMAN
III. THE SOVIETS WERE COMPLETING DEPLOYMENT OF SS-9s AND
SS-11s. MANY IN THIS COUNTRY BELIEVED THAT THE TREATY AND
THE IMPENDING TERMINATION OF BOTH SIDES' ICBM PROGRAMS
AUGURED AN ERA OF NUCLEAR STABILITY. WITHIN SEVERAL YEARS,
IT BECAME APPARENT THAT THE SOVIET LEADERSHIP WAS NOT
SATISFIED WITH THAT SITUATION. NEW SOVIET MISSILES WERE
BEING DEVELOPED. NEW TECHNIQUES FOR SILO HARDENING WERE
BEING EXPLORED. WE BEGAN DEBATING POSSIBLE RESPONSES.
BY THE MID-1970s THOSE SOVIET MISSILES WERE BEING FLIGHT-
TESTED EXTENSIVELY. WE CONTINUED TO DEBATE POSSIBLE

RESPONSES. BY 1976-1977 THE SOVIETS BEGAN MAJOR DEPLOYMENTS OF THREE TYPES OF NEW FOURTH GENERATION ICBMs -- THE SS-17, SS-18, AND THE SS-19. THESE MISSILES WERE HOUSED IN NEWLY MODIFIED SILOS WHICH WERE FAR HARDER THAN OUR MINUTEMAN SILOS -- AND WHICH WERE QUITE ABLE TO WITHSTAND RETALIATION BY OUR ICBM FORCE. WITH THE EXCEPTION OF A SMALL PROGRAM TO REPLACE THE WARHEADS OF ABOUT HALF OF OUR MINUTEMAN III MISSILES, WE CONTINUED TO DEBATE POSSIBLE RESPONSES. TODAY THERE ARE 808 SS-17s, SS-18s AND SS-19s -- WITH ALMOST 6,000 NEW WARHEADS -- DEPLOYED. TWO NEW SOVIET ICBMs -- THE SS-X-24 AND THE SS-X-25 -- THEIR FIFTH GENERATION ARE IN FLIGHT-TESTING. OUR RESPONSE, THE PEACEKEEPER, IS STILL IN THE FLIGHT-TEST STAGE AFTER 12 YEARS OF, AS YET, INCONCLUSIVE DEBATE.

OUR PEACEKEEPER FLIGHT TESTS HAVE BEEN HIGHLY SUCCESSFUL. WE ARE ACHIEVING ACCURACIES FAR BETTER THAN EVEN OUR STRINGENT DESIGN SPECIFICATION. AND YET, DESPITE THIS, DESPITE OUR CUMULATIVE INVESTMENT OF ALMOST \$13 BILLION IN THE PEACEKEEPER PROGRAM, DESPITE THE SOVIET STRATEGIC PROGRAMS, SOME STILL COUNSEL THAT WE SHOULD STOP PREPARATIONS TO DEPLOY THIS MISSILE AND CONTINUE TO DEBATE WHAT TO DO.

MR. CHAIRMAN, THERE SHOULD HAVE BEEN ENOUGH DEBATE FOR EVERYONE. NOW THE EARLIEST IOC FOR THIS MUCH NEEDED MODERNIZATION OF OUR TRIAD IS DECEMBER 1986. WE CANNOT AFFORD TO WAIT ANY LONGER. OUR DELAY HAS CONTRIBUTED TO THE CURRENT STRATEGIC IMBALANCE WE NOW FACE, AND WHICH WE MUST CORRECT.

FOR DETERRENCE TO REMAIN EFFECTIVE WE MUST MAKE

CERTAIN THAT THE SOVIET LEADERSHIP UNDERSTANDS THAT OUR RETALIATION WILL RAISE THE COST OF AGGRESSION TO UNACCEPTABLE LEVELS. THIS IS NOT AN EASY TASK BECAUSE, WHILE WE WERE CONGRATULATING OURSELVES IN THE 1970s THAT WE HAD PERSUADED THE SOVIET UNION TO ACCEPT THE CONCEPT THAT NUCLEAR WAR WAS NOT WINNABLE, DURING THE SAME PERIOD THE SOVIET LEADERSHIP WAS EMBARKING ON A MASSIVE PROGRAM TO UNDERCUT OUR DETERRENT. VIEWED IN ITS TOTALITY, THAT EFFORT IS NOW CLEAR:

- BY MODERNIZING AND EXPANDING WHAT WAS ALREADY THE WORLD'S LARGEST AND MOST SOPHISTICATED AIR DEFENSE SYSTEM, THE SOVIETS SOUGHT TO BLUNT THE BOMBER LEG OF OUR TRIAD;

- BY BUILDING A LIMITED FIRST-STRIKE CAPABILITY IN THEIR SS-18 AND SS-19 FORCE, THE SOVIET LEADERSHIP SOUGHT TO DEVELOP THE ABILITY TO PRE-EMPT U.S. RETALIATION; AND

- BY HARDENING MISSILE SILOS AND LAUNCH CONTROL FACILITIES, AND BY PROLIFERATING, DISPERSING, AND HARDENING HUNDREDS OF COMMAND AND CONTROL FACILITIES, THE SOVIETS SOUGHT TO CREATE AN ABILITY TO ABSORB A RETALIATORY BLOW AND NEVERTHELESS MAINTAIN THE MILITARY POWER, POLITICAL AND MILITARY CONTROL, AND WAR SUPPORTING POTENTIAL ESSENTIAL TO THE SOVIET STATE.

IF, BECAUSE WE FAILED TO RESPOND TO THESE EFFORTS, THE SOVIET LEADERSHIP CONVINCES ITSELF THAT THE RISKS INHERENT IN THREATENING -- OR ACTUALLY USING -- MILITARY

FORCE AGAINST US OR OUR ALLIES ARE REDUCED TO AN ACCEPTABLE LEVEL, THEN DETERRENCE INDEED WOULD BE JEOPARDIZED.

FORTUNATELY, WE ARE NOW RESPONDING. WE ARE REBUILDING OUR TRIAD. WE HAVE DEPLOYED AIR-LAUNCHED CRUISE MISSILES ON B-52s, AND THE FIRST B-1B WAS DELIVERED LAST YEAR; WE HAVE CORRECTED THE PROBLEMS IN THE TRIDENT SUBMARINE PROGRAM AND HAVE A STEADY EFFORT UNDERWAY THERE. BUT A STRONG TRIAD MUST HAVE THREE STRONG LEGS. WE DO NOT YET HAVE A MODERNIZED ICBM FORCE. WE DO NOT YET HAVE AN ABILITY TO THREATEN PROMPT AND CREDIBLE RETALIATION AGAINST THOSE KEY HARDENED SOVIET ASSETS.

IT WAS IN LIGHT OF THESE SOMBER FACTS THAT THE PRESIDENT'S COMMISSION ON STRATEGIC FORCES, THE SCOWCROFT COMMISSION, REVIEWED OUR STRATEGIC DETERRENT IN EARLY 1983. IT WAS IN LIGHT OF THESE FACTS THAT THE COMMISSION PROPOSED, AND THE PRESIDENT SUBMITTED TO CONGRESS, A PHASED PLAN FOR THE MODERNIZATION OF OUR ICBMs. TO REDRESS THESE IMPORTANT NEAR-TERM DEFICIENCIES THE PLAN CALLED FOR THE DEPLOYMENT OF 100 PEACEKEEPER MISSILES IN EXISTING MINUTEMAN SILOS. THERE IS NO OTHER AVAILABLE SYSTEM WHICH IN THE NEAR-TERM CAN DEMONSTRATE SO CONVINCINGLY THAT, DESPITE THEIR INVESTMENT IN HARDENING AND PROLIFERATION, THE SOVIET LEADERSHIP CANNOT EXPECT TO WIN A NUCLEAR CONFLICT. THUS WE NEED THE PEACEKEEPER FOR DETERRENCE.

WE ALSO NEED THE PEACEKEEPER PROGRAM IN ORDER TO HAVE A SUCCESSFUL SMALL SINGLE WARHEAD ICBM. MANY OF THE IMPORTANT COMPONENTS OF THE NEW SMALL MISSILE WILL BE DERIVED FROM THE PEACEKEEPER, INCLUDING ITS GUIDANCE AND

CONTROL HARDWARE, COMPUTER COMPONENTS AND SOFTWARE, ORDNANCE SUPPORT SYSTEMS, AND WARHEAD. AS A RESULT, OUR PLANS FOR EVOLVING INTO A MORE STABLE STRATEGIC ENVIRONMENT -- NOT ONLY FOR THE LATE 1980s BUT FOR THE EARLY 1990s -- DEPEND CRUCIALLY ON THE ACTIONS THE CONGRESS TAKES THIS YEAR. FURTHERMORE, PEACEKEEPER WILL ENCOURAGE THE SOVIETS TO BEGIN TO REDUCE THEIR RELIANCE ON LARGE, HEAVILY MIRVED ICBMs, THEREBY CONTRIBUTING BOTH TO THE SURVIVABILITY OF OUR NEW SMALL ICBM (BY REDUCING THEIR ABILITY TO MOUNT BARRAGE ATTACKS) AND TO FURTHER INCREASES IN STABILITY IN THE STRATEGIC AREA.

AS THE COMMITTEE KNOWS, WE ARE ALSO ABOUT TO RESUME NEGOTIATIONS WITH THE SOVIET UNION IN GENEVA. WE ARE SEEKING SIGNIFICANT MUTUAL AND VERIFIABLE REDUCTIONS IN THE STRATEGIC ARSENALS OF BOTH SIDES. AS SECRETARY SHULTZ HAS INDICATED IN THE PAST, A CONTINUING PEACEKEEPER PROGRAM IS VITALLY IMPORTANT TO OUR ABILITY TO ACHIEVE THE DEEP REDUCTIONS WE SEEK. THERE ARE TWO OBVIOUS -- AND CRUCIAL -- REASONS FOR THIS. FIRST, IF WE INDICATE THAT WE ARE NOT GOING TO CORRECT OUR CURRENT DEFICIENCIES, THE SOVIETS HAVE LITTLE INCENTIVE TO NEGOTIATE SERIOUSLY. WHY SHOULD THEY SEEK TO REDUCE THEIR ARSENALS, IF WE HAVE SIGNALLED WE ARE GOING TO PERMIT THEM TO MAINTAIN -- AND PERHAPS EVEN EXPAND -- ADVANTAGES THEY CURRENTLY ENJOY? SECONDLY, IF WE SHOULD HALT OR SLOW A PROGRAM WE OURSELVES RECOGNIZE TO BE CRITICALLY IMPORTANT, WE WILL CONVEY UNMISTAKABLY A MESSAGE TO THE SOVIET LEADERSHIP THAT WE LACK THE WILL, THE RESOLVE, TO ACHIEVE OUR GOALS IN THE WORLD. WHY THEN SHOULD THEY BELIEVE WE ARE COMMITTED REDUCING ARMS -- OR MAINTAINING A BALANCE OF POWER IN THE

ABSENCE OF REDUCTIONS? THE SCOWCROFT COMMISSION ADDRESSED THIS POINT SPECIFICALLY:

IT IS ILLUSORY TO BELIEVE THAT WE COULD OBTAIN A SATISFACTORY AGREEMENT WITH THE SOVIETS LIMITING ICBM DEPLOYMENTS IF WE UNILATERALLY TERMINATED THE ONLY NEW U.S. ICBM PROGRAM THAT COULD LEAD TO DEPLOYMENT IN THIS DECADE... ABANDONING (PEACEKEEPER) AT THIS TIME IN SEARCH OF A SUBSTITUTE WOULD JEOPARDIZE, NOT ENHANCE THE LIKELIHOOD OF REACHING A STABILIZING AND ECQUITABLE AGREEMENT.

TO SUCCEED AT GENEVA WE MUST SHOW THE SAME STEADFASTNESS AND DETERMINATION WHICH ENCOURAGED THEM TO CHANGE COURSE AND RETURN TO THE NEGOTIATING TABLE. THEIR EYES ARE ON US TODAY.

FINALLY, LET ME CONCLUDE BY LOOKING A BIT FURTHER INTO THE FUTURE. AS THE COMMITTEE KNOWS, THE PRESIDENT, GENERAL VESSEY, AND I ARE COMMITTED TO EXPLORING NEW TECHNOLOGICAL POSSIBILITIES WHICH MAY PERMIT US TO ELIMINATE THE THREAT POSED BY BALLISTIC MISSILES OF ALL RANGES. WE ARE ENCOURAGED BY THE RESULTS OF OUR INITIAL STUDIES AND OF OUR RESEARCH TO DATE. WE ARE OPTIMISTIC THAT THESE TECHNOLOGIES CAN BE DEVELOPED, AND THAT FULLY-EFFECTIVE, COST-EFFECTIVE, AND SURVIVABLE DEFENSES CAN BE CREATED. BUT WHILE WE PERFORM THAT RESEARCH, WE NEED TO CONTINUE EFFECTIVELY TO DETER ATTACK. ONCE A DECISION TO PASS BEYOND RESEARCH TO DEVELOPMENT IS MADE, WE WILL STILL NEED TO DETER EFFECTIVELY. AND, AS DEFENSIVE SYSTEMS ARE DEPLOYED OVER A PERIOD OF YEARS, WE WILL NEED TO ENSURE THAT THIS "TRANSITION" PERIOD IS A STABLE ONE. A STRONG AND MODERN TRIAD WILL PROVIDE THE DETERRENCE WE NEED TO MOVE DOWN THIS ROAD. A STRONG AND MODERN TRIAD MUST HAVE A STRONG ICBM LEG. AND A STRONG ICBM LEG MUST INCLUDE 100 PEACEKEEPERS. I URGE THE COMMITTEE TO TAKE THE LEAD IN MOVING THE CONGRESS TO REMOVE THE RESTRICTIONS PLACED ON FY85 PEACEKEEPER PROCUREMENT FUNDING, AND TO APPROVE OUR REQUEST FOR FY86 PEACEKEEPER PRODUCTION.

STATEMENT OF GEN. JOHN W. VESSEY, JR.

DEVELOPMENT OF STRATEGIC NUCLEAR FORCE

Senator STEVENS. General Vessey.

General VESSEY. You have my written statement, Mr. Chairman, and I would hope that could be put into the record. I would like to add just a few points to what the Secretary has said.

The first is to stress that our defense policy as it pertains to strategic nuclear arms, as it does to everything else, is defensive, it is to deter, but we want to make clear to our potential enemies that they cannot attack us and succeed. In building our strategic nuclear force, we want to make clear to the Soviet Union that the uncertainty of success in attacking us with strategic nuclear forces is so great that they will not attack. That is our objective.

TRIAD SYSTEM

We built a triad, as the Secretary said—intercontinental ballistic missiles, submarine-launched ballistic missiles, and bomber forces—because we think that by having our forces in those three particular legs that we minimize the chance of tactical surprise or technological surprise overtaking our forces.

As the Scowcroft Commission pointed out, one must view the vulnerability of the force, not a single leg of the triad and that the strengths of one help to compensate for a weakness in another leg. When one assesses the vulnerability, you have to look at the whole force.

We have made very clear in constructing that force that we do not have a first-strike policy. We have about 20 to 25 percent of our warheads in our intercontinental ballistic missile force, and the Soviets have about 80 percent in their intercontinental ballistic missile force. That is the force most useful for a first strike.

The Peacekeeper is very important to deny the success of that force. The Joint Chiefs of Staff annually evaluate our best estimate of what the Soviet strategic war plan sits against ours. We have just finished this year's evaluation, needless to say all of that is classified, but I can tell you that in examining it, we can see very clearly that the Peacekeeper assists us dramatically in making it clear to the Soviets that they cannot attack us successfully.

VULNERABILITY OF MISSILE SILOS

The vulnerability issue I cover because oftentimes people treat ICBM silos as though that were the only element of our strategic nuclear deterrent force. If it were, then we would have to deal with ICBM silo vulnerability, but it is not. As I said, only 20 percent of our warheads are in the ICBM force. Combined with a good warning system, and good command and control system, silo vulnerability is not a major issue.

The JCS support very strongly immediate deployment of the Peacekeeper for its deterrent purposes. We also support the President's arms control initiatives strongly. As we support those arms control initiatives, we have made it clear to the President at every step of the way that as we reduce our forces, it is imperative that

we have modern forces when we finish at whatever lower level. The Peacekeeper is a part of that modernization that makes the reduction to lower levels possible. When we get there we must have modern forces.

Mr. Chairman, those are I think enough points. We are ready to answer your questions.

[The prepared statement of General Vessey follows:]

PREPARED STATEMENT OF GEN. JOHN W. VESSEY, JR., USA
CHAIRMAN, JOINT CHIEFS OF STAFF

Mr. Chairman and Members of the Subcommittee.

I am pleased to be here on behalf of the Joint Chiefs of Staff to urge your support for the President's program to modernize our strategic nuclear deterrent forces as our highest military priority.

In particular, the Joint Chiefs urge the immediate and continued deployment of the PEACEKEEPER. Its deployment will strengthen the TRIAD, help ensure deterrence, serve as an incentive for Soviet restraint and provide a sensible climate for more productive negotiations. The PEACEKEEPER is tested and proven; it is ready for deployment; and we need it now.

THE US STRATEGY

Since the end of World War II our goal has been to preserve the peace through strength. This means that we, along with our Allies, need to maintain the necessary military strength in addition to the other elements of our national power to make it self-evidently clear to our principal adversaries that they can't achieve their objectives by force or the threat of force. It is a defensive strategy. Our strategy implies several essential components. The first is alliances, such as NATO and our alliances in the Pacific region. We have banded together over the years with other countries who share with us common interests and a desire for peace. The health of those

alliances has long depended upon good armed forces, both nuclear and conventional.

Second, we deploy forces in some of the regions where we have alliances. These forward-deployed forces do two things: they deter attack by making it clear to aggressors that their attack will be met by forces which include those of the United States and, second, they lend political strength to the alliances by showing our friends that our commitment is strong. To back up these forward-deployed forces, we maintain a strong central reserve of forces here in the United States, Active, Reserve and National Guard. These forces can go to reinforce our forward-deployed forces or go elsewhere in the world to protect our interests.

To support this concept, we need control of the seas and we have a good Navy to do that. We need the free use of space. We need good intelligence to warn and inform us; we need good mobility to project our power and to sustain it far from our own shores; and we need outstanding command and control to direct our forces.

Overarching all these components are our nuclear deterrent forces and the essential warning and command and control systems. Our strategic nuclear forces are embodied in the TRIAD -- a concept which has kept the peace for over twenty years. The TRIAD is designed as a deterrent, not for a first strike. About 80 percent of our strategic weapons are in the bomber and submarine forces. Only 20 to 25 percent of our force is in land-based ICBMs. We maintain the three elements of our TRIAD because each leg of the TRIAD provides special strengths which reinforce the deterrent value of the other legs and help

guard against tactical and technical surprise. The TRIAD is the foundation of our deterrent strategy.

THE SOVIET NUCLEAR THREAT

The Soviets continue to modernize their strategic nuclear forces. In contrast to our relatively small force of land-based ICBMs, the Soviet force is over 80 percent land-based, the kind of force most useable for a first strike. In 1982, the Soviets deployed more, highly accurate ICBM warheads than we intend to deploy in our entire PEACEKEEPER program. In 1983, they deployed another 200 ICBM warheads and in 1984 they were nearing completion of the latest phase of the modernization of their current silo-based strategic ICBMs. The Soviets' SS-18 and SS-19 missiles, which would total over 5,000 warheads, are in the world's hardest silos, with a redundant, survivable, command and control network. Moscow is protected by the world's only operational ballistic missile defense system. We expect deployment of newer missiles, the SS-X-24 and SS-X-25.

THE MILITARY RATIONALE FOR PEACEKEEPER

The Soviets continue to spend large sums for offensive nuclear weapons capable of achieving their war aims. In addition, they have extensive programs for active and passive strategic defense. These facts lead to the conclusion that the best deterrent is a US military capability that makes the Soviets' assessment of war outcomes under any circumstance so uncertain and so dangerous as to remove any incentive for them to initiate an attack. This fundamental prescription for deterrence means that the deterrent value of the PEACEKEEPER must be measured in terms of the uncertainty it causes for Soviet warplanners in designing an effective ability to achieve their war aims.

The Soviets have taken on difficult tasks for themselves in attempting a war-winning strategic posture. The military requirements for such a capability are extensive, including the need for very sophisticated weapons, large forces and the capacity to execute difficult attack scenarios. These self-imposed Soviet military requirements are the key to an effective US counter-strategy. We believe that the Soviets' war aims are to destroy US nuclear and conventional military capabilities with their land-based missiles while maintaining large reserves for post-war dominance. In order to have high assurance of success, the Soviets need to strike our forces several times and they have the force structure to do that. To counter this Soviet strategy, we need the PEACEKEEPER missile.

The PEACEKEEPER missile is a direct counter to Soviet war aims because it can retaliate promptly with phenomenal accuracy against the Soviet attacking force and other high-value military targets during the conduct of what will necessarily be a prolonged attack. The deterrent value of the PEACEKEEPER comes from this potential to retaliate against Soviet missiles and hardened command posts meant to protect Soviet political and military leaders.

Some have questioned the vulnerability of the PEACEKEEPER system. Vulnerability has to be considered in light of the whole TRIAD of our strategic force. The Soviets cannot attack the land-based leg of our TRIAD in isolation from the other legs of the TRIAD. The Soviets must deal with all legs of the TRIAD and supporting command and control simultaneously. This enormously complicates the achievement of the Soviet war aims. If the PEACEKEEPER was the only element of our strategic nuclear deterrent force, then its vulnerability would be of far greater concern that it is with the ICBM force contributing about

20 percent of our strategic nuclear deterrent force. Within the TRIAD, any potential vulnerability of the land-based leg is compensated by the warning system, the command and control system, and the other legs of the TRIAD.

Deploying the PEACEKEEPER does not mean that the United States is developing a first-strike posture. It is absolutely necessary that we have the retaliatory capabilities to be able to deny Soviet war aims. According to the Soviets' own calculus, the PEACEKEEPER will thoroughly complicate an effective attack. The PEACEKEEPER will add significantly to our deterrent posture and it will be a stabilizing factor in the strategic nuclear US-Soviet equation.

CONCLUSION

The United States delayed its strategic nuclear modernization, and we have had to modernize all three legs of the TRIAD at the same time. We are making steady progress with the bomber and submarine force modernization. The TRIDENT submarine program will modernize our aging ballistic missile submarine fleet and the D-5 missile will add new capabilities to the sea-based leg of the TRIAD at the end of this decade. The B-1B program is on schedule; it will be in the operational force next year. It will provide a modern, responsive bomber capable of penetrating Soviet defenses.

The modernization of the ICBM force has had a series of delays well known to this committee. The delays have not been technological or system delays; the missile is performing superbly. The Joint Chiefs of Staff urge the immediate deployment of the PEACEKEEPER. The PEACEKEEPER is tested and proven, and it is ready for deployment. The Joint Chiefs of Staff believe that we must proceed now with the deployment of the PEACEKEEPER in order to maintain the effectiveness of the TRIAD and our deterrent strategy into the next century.

NUMBER OF MISSILES DEPLOYED WITH FISCAL 1985 APPROPRIATION

Senator STEVENS. I want to yield to our chairman.

Let me first ask, just to make sure, we are only talking today about the 1985 appropriations request for spending in 1986. We have before us really the 1985 increment in the overall request of the President for 100. The original request that we got from President Carter was for 200 MX.

Secretary WEINBERGER. That is correct.

Senator STEVENS. The total is for 100, and we are talking now about the 21 that would be built and produced for deployment in 1985 if these moneys are released. Is that correct?

Secretary WEINBERGER. That is absolutely correct. The 1985 money already appropriated but with a fence around it.

Senator STEVENS. Our distinguished chairman must go to the floor. That quorum call is for him, as a matter of fact, and I will yield to him.

Unless there is objection, because I think there will be substantial attendance this afternoon, I would like to request that we maintain a 5-minute rule, and yield back and forth on both sides of the aisle until everyone has had one turn, then we will go back and reassess the time limit at that time.

If it is agreeable to the chairman, I yield to the chairman.

CHOICE BETWEEN PEACEKEEPER AND MIDGETMAN

Senator HATFIELD. I thank you, Mr. Chairman.

Mr. Secretary, on page 5 of your testimony, you refer to the necessity of pursuing the Peacekeeper or the MX missile in order to have a successful small single-warhead ICBM. It is the Midgetman, I assume, that you are referring to. Let me ask you this question, if you were to choose between the MX and the Midget, which one would you want?

Secretary WEINBERGER. Both.

Senator HATFIELD. Then it is basically an additive to our arsenal that you are seeking in the MX?

Secretary WEINBERGER. No, sir, because when we deploy the MX, if as we hope they are voted, a number of missiles would be taken out. The small single-headed missile, we are not able to speak about with a full degree of certainty because we don't know precisely the mode it would take. We are examining very carefully to see if we could get a mobile mode for it because the Soviets have a mobile mode, and that increases survivability.

We don't know precisely what that would be, but we are, generally speaking, reducing the number of warheads. We have, as you know, at one of the recent NATO meetings, made agreements to take out a very substantial number of nuclear warheads as a result of that meeting.

It is not necessarily an additive, it is a regaining of effective deterrent capability, and both are needed.

MIDGETMAN REPLACEMENT FOR MINUTEMAN

Senator HATFIELD. You expect to have them replace the MX ultimately?

Secretary WEINBERGER. Have what replace the MX?

Senator HATFIELD. The Midgetman.

Secretary WEINBERGER. No, sir. They fulfill different roles. A number of the Minuteman, yes.

Senator HATFIELD. Then really, the MX will not be replaced by the Midgetman and therefore is not a means to arms reduction.

Secretary WEINBERGER. It is not an arms increase.

Senator HATFIELD. You are adding on to the arsenal.

Secretary WEINBERGER. It is not an arms increase, it is a more effective means of getting the kind of strength we need in the face of the changed and vastly improved Soviet ground-based systems.

MX AS BARGAINING CHIP IN ARMS TALKS

Senator HATFIELD. Is there any strategy that the administration is pursuing that could conceivably include the MX as a bargaining chip with the Soviets?

Secretary WEINBERGER. Let me emphasize two things, Mr. Chairman. The MX missile is needed in and for itself. We have not done modernization for the many years that we have indicated, over 20 really, in any serious way during which time the Soviets have deployed two more generations and are testing others beyond that. So the MX is a needed modernization and strengthening of the ground-based part of the Triad. Not to do it is to give up the Triad.

At the negotiations, the President has said, everything is on the table. It doesn't mean that the MX is a bargaining chip. It is a very necessary addition to our strength. If, as we hope, we can get drastic reductions of nuclear weapons of all kinds as a result of the Geneva talks—and they are verifiable agreements and they bring us down to parity on both sides, but at much lower levels—then we would not exclude from reductions that we are talking about any of the weapons in our arsenal, neither, of course, if we could get that kind of agreement, would the Soviets.

It is not a bargaining chip, it is something that we need. The other side of that is, if we don't have it, we know that we haven't any inducement whatever with the Soviets to make any reductions because they will have secured unilateral American reductions without making any of their own.

Senator HATFIELD. Is it possible to arrive at some kind of an agreement with the Soviets which could conceivably create a situation where we would not have to fund the MX missile further down the line.

Secretary WEINBERGER. I can't conceive of that in any way.

ARMS REDUCTIONS DEPENDENT ON STRENGTH OF TRIAD

Senator HATFIELD. You state on page 6 that in order to reduce the number of nuclear arms, we need to build and deploy the MX missile. In other words, in order to reduce arms, we have to increase them. Is that what I hear you saying?

Secretary WEINBERGER. What we are talking about, Mr. Chairman, is regaining an effective, modern, credible, ground-based leg of the Triad, and the MX is the only one we have that we are anywhere close in years to deploying. We have, after all, put 12 years into it—12 years of debate—and \$13 billion, and if that is scrapped

that will not give up the need for such a system, it will simply mean that we will have to start over.

With respect to agreements with the Soviets, we would hope that we could get some kind of an agreement in which they would take out some of their very modern and greatly larger number of modernized missiles, and that we could get down to somewhere very close to parity, much lower levels. We might, under those circumstances, take out some of the MX. But I can't imagine getting anywhere near such an agreement if we aren't proceeding, rather than still debating, with this necessary follow-on to our 20-year-old system that is in the ground now.

Senator HATFIELD. To reduce, we have to escalate.

Secretary WEINBERGER. It is not escalate at all because, as I said, it is a substitution for the most part. It is a matter of improving and getting the modernity and the effectiveness that is needed. You have the same thing with the bomber part of the triad. You are getting a much better plane to replace the 26-year-old B-52, but it is for the most part a replacement process, not an addition.

Senator HATFIELD. We have to communicate to the Soviets a very distinctive, valid concept that we are superior to them.

Secretary WEINBERGER. No, sir. We have to communicate to them exactly the opposite. We have to communicate to them that we have an ability, after their first strike—if they make one because we won't make one—to respond and retaliate, and thereby inflict costs on them that will be so high they won't make that first attack.

U.S. VULNERABILITY

Senator HATFIELD. We are vulnerable today. We could not do this.

Secretary WEINBERGER. We have great worries about the degree of redundancy that is essential, about the degree of modernization to the triad. We do not have the accuracy that we need in neither the submarine missiles or the ground-based missiles. We have a few of the new planes coming on line, below cost and ahead of schedule, but we have to continue. That process takes a very long time, and it takes even a longer time when you have neglected to do it over a number of years when we should have been doing it.

SUGGESTED PAUSE IN TESTING AND DEPLOYMENT DURING NEGOTIATIONS

Senator HATFIELD. Is there any possibility that we could, as in the pattern of John F. Kennedy in the Test Ban Treaty, propose to the Soviets at this time a mutual agreement to pause all testing and deployment of all weapons during the negotiated period?

Secretary WEINBERGER. I don't think that you can do that when they have tested fully and deployed systems that are two generations ahead of ours. We would have a situation where we would give up all testing that is needed for the deployment of our modernization program, while they, having already modernized, would sit quietly by and see a position of inferiority and, as I see it, dangerous inferiority, to our deterrent capability being stabilized by an agreement.

Senator HATFIELD. Mr. Secretary, I think you have very eloquently stated the administration's case. As I understand it, we have to escalate the arms race in order, hopefully some time in the future, get some kind of an arms limitation and an arms reduction.

Secretary WEINBERGER. Senator, that is not the administration's case, and if I have communicated that to you, I have failed miserably in my role of an advocate.

Senator HATFIELD. Why are you up here asking for an escalation—

Secretary WEINBERGER. No, I am up here asking for a modernization.

Senator HATFIELD. They are not in lieu of, they are add ons.

Secretary WEINBERGER. No, sir, they are for the most part in lieu of, but you have to get them developed, tested, and deployed, and then you can take out some of the others as we plan to do.

Senator HATFIELD. I don't charge you with miscommunicating. I just think it is looking at the same set of facts, but understanding perhaps two different conclusions that can be drawn from the same set of facts.

Secretary WEINBERGER. I have to say that I think there is only one reasonable conclusion that can be drawn from the facts that we have now debated for 12 years.

Senator HATFIELD. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Proxmire is recognized.

Senator PROXMIRE. Thank you, Mr. Chairman.

FUTURE MX FUNDING

Mr. Secretary, as I understand it, this is a request for \$1.5 billion in 1985 for the MX.

Secretary WEINBERGER. To be released. These are funds that have already been appropriated.

Senator PROXMIRE. I understand that. Then there will be \$4 billion in 1986, and then what, \$20 or \$30 billion altogether?

Secretary WEINBERGER. No, sir, there is a \$4 billion request pending in 1986, and our calculation of the remaining years of the program would be about \$6.5 billion through 1990, which would complete the program.

Senator PROXMIRE. That includes the \$4 billion in 1986, and the \$1.5 billion today?

Secretary WEINBERGER. Yes, sir. You start with the \$4 billion in 1986, and then for the remaining 3 years of the decade, our figures show that we would need about \$3.2, \$2.4, and \$1.5. I will add those quickly, but that is about \$7 billion.

Senator PROXMIRE. \$7 billion will complete the program, including everything we have put into the MX to date and including everything we would put in the future?

Secretary WEINBERGER. That would give us the 100 that we need and that the Joint Chiefs have concluded are militarily required to give us the sufficiency that we need in this leg of the triad.

VALUE OF MX IF SDI RESEARCH PROGRAM SUCCESSFUL

Senator PROXMIRE. Will the missiles be of any value if we have a Star Wars Research Program that is successful and give it to the Soviet Union as you and the President have proposed?

Secretary WEINBERGER. Yes, sir, it will give us the necessary years of safety to develop that kind of program, the necessary deterrent during that period of time. We don't know if we can get the strategic defense initiative, we think we can, we hope we can, but we know that it will take many years to do it, and we know that we must modernize while we are developing it.

Senator PROXMIRE. If and when we do get the strategic defense initiative, however, the MX at that point would be obsolete. Is that correct?

Secretary WEINBERGER. Depending on the effectiveness and how fairly we can fund and deploy that system. Senator, we would very much hope that it would be obsolete, that is the objective of it.

Senator PROXMIRE. You express great confidence that it would be.

Secretary WEINBERGER. I express great hope, Senator. I have great confidence in our Nation's ability, our productive and inventive genius, but I am certainly not making any predictions.

REDUCED VULNERABILITY OF EXISTING SILOS

Senator PROXMIRE. Yesterday, Gen. Bennie Davis, the Strategic Air Command Commander, told the Senate Armed Services Committee that because, "We have discovered that existing silos are harder than originally thought, our land-based missiles are not as vulnerable as everyone thought. In its early days, the Reagan administration insisted that we had to deploy the MX to correct that vulnerability which, it said, place 90 percent of our ICBM's at risk."

If the vulnerability no longer exists, and our Minuteman silos are much safer than we thought, according to General Davis, doesn't that knock the legs out of the argument for the MX?

Secretary WEINBERGER. No, sir. If you read General Davis' testimony carefully, I think what he is alluding to is the fact that tests of the clay in the specific areas where the silos would be placed at Fort Warren is producing a hardness somewhat in excess of that previously proposed, but not a hardness which gives a total invulnerability.

There are, however, some very interesting and encouraging engineering breakthroughs which could possibly be on line in the 1990's that could give very substantial increases in that. There is a difference, Senator, between silo vulnerability and vulnerability of the system, and it is important that we bear that in mind.

BARGAINING CHIP STATUS OF MX

Senator PROXMIRE. We have heard a lot of arguments that the MX is or is not a bargaining chip. I am not sure even though your responses to Senator Hatfield were very helpful. I would like to have you state whether it is a bargaining chip or it is not?

Secretary WEINBERGER. No, sir, I think that it is not a bargaining chip, but I think that without it our bargaining position is gravely weakened, if not destroyed, with respect to intercontinental missiles. It is a system which we need in and of and for itself because, if we can get it, it will aid us to get the kind of agreements we want, but it is not a bargaining chip, and that ought to be crystal clear.

Senator PROXMIRE. It is not a bargaining chip, but without it we wouldn't have this bargaining position. So it is a bargaining chip in that sense.

Secretary WEINBERGER. I don't know how you are defining bargaining chip. But if you go into a negotiation, having told the Soviets that we are not going to modernize, we are going to let them keep their substantial lead in the ground-based leg of the system, then you have destroyed, in my opinion, any attempt, any effort, any possibility of getting a good, sharp reduction of equal size on both sides. If you have that which we need, and have needed now for 12 years, then your opportunity to get a good agreement is improved, but without it, you have no opportunity whatsoever. I emphasize again that the system is needed now in and of itself.

TESTING RESULTS OF MX

Senator PROXMIRE. According to the New York Times this morning, MX missiles will be deployed next year because guidance systems and warheads have been fully tested. Is the report accurate that only two of seven MX flight tests so far have carried more than one new warhead?

Secretary WEINBERGER. No, that is not accurate. We have the details on the tests.

General, do you want to go through those, or do you want me to?

We have had seven tests and they have been very successful.

General VESSEY. The system will be thoroughly tested by the time that it is fielded. The success of the tests thus far has been very great. We have had seven highly successful flight tests of the missile, and 13 tests of the reentry vehicle, so tests are marching on. This is one of the most successful missile programs we have ever had, Senator.

WARHEADS USED IN FLIGHT TESTS

Senator PROXMIRE. Is it true that the flight tests carried only 6 warheads each instead of the normal 10?

General VESSEY. Six to eight.

Secretary WEINBERGER. There is no problem with adding another two on it. What we are testing, of course, is dummy warheads, and we are testing them down a range that would be realistic. They have carried anywhere from six to eight, and there is no problem in adding the extra two.

TESTING OF GUIDANCE SYSTEM

Senator PROXMIRE. Is it true that the new guidance system will not be tested until the 11th flight test, with operational testing not completed until the 15th test?

Secretary WEINBERGER. The guidance systems are being tested all the time.

Senator PROXMIRE. They have been tested?

Secretary WEINBERGER. Yes.

General VESSEY. We have had extraordinary accuracy with the missile thus far, Senator.

TESTING OF MX FUSING MECHANISM

Senator PROXMIRE. Is it true that the fusing mechanism for the MX has yet to be tested?

General VESSEY. It has not yet been flight tested, but it is in its regular phase of testing. It has undergone all of its ground-tests, and the flight tests are coming in time.

Senator PROXMIRE. Thank you, Mr. Chairman.

Secretary WEINBERGER. What I would say to you, Senator, it is very important to understand that that particular GAO thing was leaked. It is a draft report that was leaked to the press before it was ever even sent to the Pentagon for comment.

Senator PROXMIRE. Will all the testing be completed before the first deployment?

General VESSEY. All the testing that is required to make the system operational will be completed before the first deployment.

Senator PROXMIRE. Thank you.

Thank you, Mr. Chairman.

ACTIONS TO CURB INFORMATION LEAKS

Senator STEVENS. Mr. Secretary, I want to assure you that that leak wasn't from the staff on this committee, and if it continues in that other committee, I am going to act to try and deny it access to such information that has been requested because it is just getting out of hand.

Secretary WEINBERGER. It is, indeed, Mr. Chairman. You get those preliminary drafts out before we have a chance to help GAO correct them. They send them to us so that we can comment, and frequently, as you know, they make major changes in them after the first draft, before they are issued. So, I agree with you completely.

BARGAINING CHIP THEORY NOT RELEVANT

Senator STEVENS. Mr. Secretary, in my judgment, the arms control negotiations are not a table stakes game. It appears to me that it is high time that we stop talking about whether it is a bargaining chip. We are talking about the total defense of the United States. We have already spent \$13 billion on this MX, according to our figures. Is that correct, according to yours?

Secretary WEINBERGER. Yes, sir.

Senator STEVENS. In other words, we are more than 60 percent through the MX as a new operating system to defend this country, and we are in an argument now as to whether it should proceed.

Secretary WEINBERGER. Exactly right. If you would want, Mr. Chairman, I can give you the percentage on the various pieces of it. If the 1986 budget is approved as submitted, we will have com-

pleted 94 percent of the research and development, 72 percent of the military construction, 54 percent of the procurement, and a total composite of 67 percent of the whole program.

Senator STEVENS. Thank you.

I have a series of questions to ask. It does seem to me that these arms control implications are very serious. In my judgment, as I said, we should not be referring to this as a bargaining chip. At this point in our history, there is no single bargaining chip with the Soviets.

Secretary WEINBERGER. We need it, there is no bargaining chip business involved in it.

Senator STEVENS. Let me yield to Senator D'Amato for his time.

Senator D'AMATO. Thank you very much, Mr. Chairman.

Mr. Secretary, did you respond to that request for bid?

Secretary WEINBERGER. We sent an answer in reply, and we found out that he was another, perhaps, anonymous leak. I think you dealt with it better than anybody, Senator. You got on with what he was trying to do. Unfortunately, we just gave him a standard, nice reply.

Senator D'AMATO. Mr. Secretary, I believe that the MX decisions that we make today do relate very much to the President's ability to conduct negotiations with the Soviets in Geneva, which we certainly hope will be a successful undertaking, but also affect the future. It is not just for Geneva, but for this whole undertaking.

After a dozen years of consideration of the MX, approval by past administrations, thoughtful consideration with respect to deployment, and all the questions raised with respect to missile survivability in the silos, there comes a point in time that our credibility, with respect to a deterrence and determination to see to it that we have the kind of deterrence necessary to assure peace, becomes a real consideration, and the Soviets may really doubt that we have the capacity, the will, and the determination to follow through on our efforts.

Secretary WEINBERGER. I agree with you, yes, sir.

SCOWCROFT COMMISSION SUPPORT OF MX

Senator D'AMATO. Mr. Secretary, the Scowcroft Commission provided the basic reasons for proceeding with the MX, I am not going to quote them all. Do you believe that those basic presumptions, particularly as they talked about a workable strategic defense and deterrence, are still valid conclusions?

Secretary WEINBERGER. Yes, sir. They said that abandoning the MX at this time in search of a substitute would jeopardize, not enhance, the likelihood of reaching a stabilizing and equitable agreement. It would also, as they said in the previous sentence, seriously terminate the only new U.S. program that could lead to deployment, and thereby injure deterrence.

RETALIATION CAPABILITY OF U.S. TRIAD

Senator D'AMATO. Mr. Secretary, critics raise again and again the issue of vulnerability of the MX deployed in the Minuteman silos as the key reason to terminate the program. Again, the Scowcroft Commission stated that the Soviets do not have the ability to

conduct a coordinated strike that would be effective against both our bombers and our ICBM's. Depending upon the attacking options selected by the Soviets, either the bombers or the ICBM's would survive to retaliate. Thus, again, with the Soviets being aware of this, the question of deterrence again becomes a very real one. Is this reasoning still valid in your view?

Secretary WEINBERGER. Yes, sir. The important thing is to have in the ground, in the air, undersea, available, a responsive capability so that if there is a first strike, and it begins, we would then be able to launch to launch, after attack, and they would know we would have that capability, and launch a missile that is effective and could inflict the kind of damage that they would find, to their most highly prized targets, unacceptable damage. That is the whole essence of deterrence, and that is why you have to have it.

SOVIET PROTECTION OF KEY ELEMENTS

Senator D'AMATO. Mr. Secretary, in the Soviet moves, in terms of modernization, in terms of hardening and dispersing key functions that they have as their key elements, what impact do you think the Soviet program has on the credibility of our deterrent unless we move forward?

Secretary WEINBERGER. I am afraid that I didn't get the beginning of your question.

Senator D'AMATO. Can you tell the committee what the Soviets have done to protect the key elements of Soviet power?

Secretary WEINBERGER. Yes. They have hardened their silos far beyond ours, far beyond what they used to be—they have buried and hardened their command and control facilities, not just for their missile system but for their war fighting machinery. They have spent a lot of money on civil defense. They have a refiring capability—indicating, along with the doctrine that it is published and the few things that we have available to us, their belief that they can fight and win a nuclear war. We don't think so. We think a nuclear war cannot be won and must never be fought.

In calculating these dangerous and difficult equations of deterrence, we have to figure what it is they are capable of and what seems to be their approach, and their approach seems to be that they could fight and win a nuclear war, and that they should be able to make successive strikes. Therefore, in order to deter them, we have to have the capability to disabuse them of that, and that is exactly why we need a modern triad that is effective, accurate, and has yield.

Senator D'AMATO. The bottom line, Mr. Secretary, you are saying that without giving us the ability to go forward and to modernize, the Soviets may come to believe that we are not capable of that type of deterrence that would make nuclear war unacceptable.

Secretary WEINBERGER. That is the dangerous point of erosion of deterrence, when they come to believe that they might not have to fear a retaliatory strike after their first strike. That is what it is obviously our responsibility to report to you as to how to avoid that, and that is what we are doing today.

Senator D'AMATO. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Sasser.

Senator SASSER. Thank you very much, Mr. Chairman.

MX VULNERABILITY IN MINUTEMAN SILOS

Mr. Secretary, I supported the development of the MX, as I suspect you know, and I also supported the deployment of the missile when the previous administration recommended that it be deployed on a racetrack system. I supported the development and deployment of the MX principally because I was convinced that Minuteman was in a vulnerable basing mode. That is what I had been told and led to believe by the Air Force.

Mr. Secretary, by putting the MX into the old Minuteman silos, do you believe the MX is vulnerable?

Secretary WEINBERGER. I think, as we mentioned a moment ago, Senator, having it in the ground and available for use, given the limitations and facts surrounding a potential Soviet first strike, that it adds enormously to our deterrent capability if they know that if they begin an attack, it could be met by a far more effective and accurate missile of high yield that would destroy their most valued targets.

The vulnerability of the silos is not the vulnerability of the system. The racetrack system, with its 200 missiles, and 2,400 holes in the ground, or whatever it was, garages, or whatever, it was also vulnerable because they could target those.

Senator SASSER. Mr. Secretary, the only way to make the MX invulnerable in the Minuteman silos would be to launch the missile on warning; isn't that correct?

Secretary WEINBERGER. No, sir. No, it would not, to launch it after attack because the attack could not be effective enough to destroy those missiles.

Senator SASSER. In other words, you would wait until actual nuclear attack took place on the continental United States.

Secretary WEINBERGER. We are talking a lot of hypotheticals, and we are verging on the edge of material that ought to be covered in a closed session. But we do not have a first strike plan. We do not have any desire or any strategy that requires it. We have an absolutely essential necessary strategy of maintaining a deterrent capability that will let them know that if they do make a first strike, they will be met with a response they will find unacceptably high.

MX SURVIVABILITY IN MINUTEMAN SILOS OF FIRST STRIKE

Senator SASSER. Is it your contention today, Mr. Secretary, that the MX in the Minuteman silos would survive a first strike by the Soviet Union?

Secretary WEINBERGER. Yes; it would survive sufficiently to give us a sufficiently increased degree of deterrent capability.

Senator SASSER. Would you agree with that, General?

General VESSEY. As I said in my opening statement, Senator, the Soviets have to look at our entire force. We have 20 percent of our strategic nuclear warheads in our ICBM force. If we lost them all, the Soviets would still face severe retaliation.

Senator SASSER. From submarine-launched ballistic missiles, and from air-carried missiles, and aerial bombs.

General VESSEY. That is correct. The Soviets can't count on getting all of our ICBM's.

Senator SASSER. Even if they did get all of our ICBM's, the other two legs of the triad would be intact.

General VESSEY. That is right, if they go after the ICBM's first. It is possible for them to go after the bombers first, and then our ICBM's will be the retaliatory force.

Senator SASSER. My concern is this, Mr. Secretary if we put the MX in the old Minuteman silos, we are moving into a posture where we must launch these MX's on attack, or maybe even on warning, I won't argue the point about that. We move into a posture of using them or losing them. In other words, they won't survive the initial detonation.

Secretary WEINBERGER. There is no President, Senator, who could possibly sit idly in the White House and have some Soviet missiles impact on the United States without responding. The question is, are you going to have something with which you can respond that the Soviets will perceive, before they make such an attack, that it will inflict damage on them of that character.

When you add together all three parts—the surviving portion of the MX on the assumption that it will be deployed, the submarine and the aerial force—that it is not only why we need a triad of deterrent capability, but it is that that protects and has protected us for 40 years. But you can't let it go. You can't have it be not sufficiently accurate, not have sufficient yield, not have sufficient ability to use when you need it, but you don't use it first, and you don't use it on warning.

Senator SASSER. What are we after with the MX? Are we after greater yield, or are we after greater accuracy?

Secretary WEINBERGER. Both.

General VESSEY. Principally accuracy, Senator.

Senator SASSER. Could we get the same accuracy, General, if you put the MX guidance system on the Minuteman missile?

General VESSEY. No.

Senator SASSER. As a technical answer, you would say that this could not be done?

General VESSEY. We have looked at improving the Minuteman accuracy, and certainly we want to do that. We have made some steps on the accuracy, but we don't expect to get the accuracy that we are getting out of the MX.

Senator STEVENS. I am sorry to tell you this, but the Senator's time has expired. You go ahead and finish your question.

Senator SASSER. No, it is all right, I will wait for my next round, Mr. Chairman.

Senator STEVENS. Senator Rudman.

Senator RUDMAN. Thank you, Mr. Chairman.

GENEVA POSITION WITHOUT MX

Secretary and General Vessey, the fact of the matter is, here in the Senate, our responsibility is to ratify a treaty that the President submits to us, if in fact he does. Your responsibility in the ex-

ecutive branch is to advise him. It seems to me that the issue that is facing us this year is different from the past 4 years. I guess someone around here is going to have to be brave enough to tell the President what he needs to go into talks in Geneva, and I am not that brave.

You have said, and I believe you have said it repeatedly, and you may repeat it again if you wish, that it is the position of this administration that if we deny you the MX, we jeopardize your chances in Geneva. Is that your position?

Secretary WEINBERGER. That is absolutely correct, yes, sir.

Senator RUDMAN. I have to tell you, frankly, that I think the debate which has been repeated so many times around this town is getting a little bit boring, probably to you as well as to the rest of us. The fact is, this Congress will have to decide whether or not it wants to take the responsibility to see the arms talks fail. That is, in my opinion, what a no vote means in this case.

Secretary WEINBERGER. It is a very accurate assessment, Senator.

Senator RUDMAN. I am not particularly in love with this missile, but I think that that is the position we are in.

TOTAL U.S. LAND-BASED MISSILE FORCE

Let me turn to our present land-based force because I think that much of this debate tends to ignore something that in my opinion the American people probably ought to know. We presently have 550 Minuteman III's, and 450 Minuteman II's, for a total of approximately 1,000 missiles. Is that correct?

Secretary WEINBERGER. About 1,030, actually.

Senator RUDMAN. I believe that includes the Titan II, and I didn't include the Titan. I wouldn't want to include the Titan II if Greenland declared war on us, Mr. Secretary.

Secretary WEINBERGER. I don't know who the Titan II is more dangerous for. [General laughter.]

TECHNOLOGY OF LAND-BASED FORCE

Senator RUDMAN. We have done some upgrading to the Minuteman, some of them are several RV's, or about half and half single. Isn't it a fact, General Vessey and Mr. Secretary, that even with the upgrade of guidance systems, the technology in that land-based force, the general technology and the circuitry, booster systems, the fuel, the mechanical interlinks, is all 1960's technology. Is that correct?

Secretary WEINBERGER. A few parts have been added, but it is basically a 20-year-old missile.

Senator RUDMAN. The fact of the matter is that it sits in the ground. I suppose you can also say that is a "use it or lose it" system. It certainly isn't hardened to any great degree.

Secretary WEINBERGER. You can use that tag about anything you want. It is as you describe, the age of the system.

Senator RUDMAN. So if you come right down to it, without even disconnecting it from Geneva and from all of these other discussions, the fact is that until someone in this Congress or the administration all agree that we only need a two-legged system, we can do away with the triad, we can do away with the land-based force.

The fact is that aside from all these other considerations, this Minuteman fleet is getting very, very old. In my view, from personal inspection and discussions out there, I really have serious doubts about how well some of it works now.

Some of this is classified, but I would like you to respond to how you feel about that in terms of what is sitting there in the ground. What you essentially have are 1960's version computers and explosives stuck in a hole in the ground, and sitting there now for about 20 years. What kind of confidence do you have in that kind of a system? I think the American people ought to know that also.

Secretary WEINBERGER. You are right, you are verging on the edge of classified information, Senator, but the fact is that we felt in 1981, and indeed in 1980, that a substantial modernization was needed to all three parts of the triad. We feel very strongly that the triad itself has to be maintained, that you need that redundancy and synogism that you get from the three systems interacting together.

We think that all of them need modernization. We are well launched on the submarine and on the bomber, but, until we get the MX in the numbers required, we have not made the necessary decisions to do that. We are started on it with the first 21 that were authorized in fiscal year 1984, but that is a long way from completing it.

Senator STEVENS. Let's take a 5-minute recess.

[Short recess.]

ANNUAL TESTING OF MINUTEMAN

Senator STEVENS. General Vessey, continue with what you were saying.

General VESSEY. I would like to add something to the answer the Secretary gave to Senator Rudman.

I don't know how many Soviets we have in the room. We probably have a few, or they will get what was said, and I don't want them to get any undue comfort. Both you and the citizens of the United States need to know that we test the Minuteman II and the Minuteman III every year. We have daily maintenance checks on it. We pay an awful lot of attention to make sure that it is working. You are right, it is old. It is sort of like my car. It works well, but my car is 15 years old, and these missiles are a little older.

Senator RUDMAN. General, without getting into classified information, I have been out there and I have had the briefings, the fact is that they take a lot of tender loving care to keep them on line.

General VESSEY. You are right about that, and we give them that care.

Senator RUDMAN. The fact of the matter is that some were manufactured in the early 1970's, but the technology in those is 1960's.

Secretary WEINBERGER. You are right.

Senator RUDMAN. I want this to be understood by everybody, aside from all the issues that distract us around here.

General VESSEY. I just don't want the Soviets in here to get any aid and comfort from what you said.

Senator RUDMAN. I think that they probably won't, General.

CONTINUING MX DEPLOYMENT

Let me ask the Secretary one further question, and it is directed to an answer you gave to Chairman Hatfield in terms of continuing MX deployment. We all agree, I think, those who are interested in the whole area of disarmament progress, that the MIRV is the destabilizing influence. It was entered into at a time when the treaties didn't really anticipate it, when launchers were being counted, and so fourth. The fact is that many feel that there ought to be progress in moving away from MIRV's because they tend to be less destabilizing.

Secretary WEINBERGER. Yes.

Senator RUDMAN. What happens, Mr. Secretary, to this missile if in fact over the next 18 months we get an agreement with the Soviets, particularly in relation to the 18's and 19's to change the roles on MIRV'ing. What happens then?

TREATY REQUIREMENTS

Secretary WEINBERGER. It is a very hypothetical kind of situation, Senator, but essentially what we want are treaties with the Soviets that would bring about significant reductions, that would bring us back down to parity and would be fully verifiable. If within that criteria, those three basic goals that we have, we could get a significant reduction of the most modern comparable Soviet missiles, we would certainly consider reductions of our own. We want very much to get that kind of a treaty.

The idea you are going to get a treaty which will eliminate MIRV'ing, I think is not realistic. On the other hand, we agree with about the desirability of single warheads. We are developing, should have in the early to mid-1990's, the new single-headed missile, and we are looking at mobile basing for it. The Soviets have a mobile basing for their newer systems, they are three warheads, and they are very accurate.

VERIFICATION MANDATORY IN ANY NEW TREATY

These are the factors that would go into it, but what we want are the kinds of agreements that I have mentioned, but emphasize, completely verifiable, because that is the essence of the whole thing.

I don't know if the committee would like to see it at this point, but this is a chart which demonstrates the degree of development of our systems versus theirs year by year. You will see that great gap between 1972 and 1979 in which there is no blue symbols, and the comparable figure up there in which the red is so thick that you can hardly find the rest of the chart. This is really the essence of the problem. They have never stopped. They are not stopping now. They are working now on a generation beyond what they are testing. We did not, we stopped. That is the real worries.

Senator RUDMAN. I only have probably 30 seconds left, but let me just conclude the way I started. It seems to me that this committee and this Congress have a very simple decision ahead of them. If we want to second guess the President and say, we will tell you what to take to Geneva, and I suppose that we can vote the MX down,

but I think that it is a terrible responsibility. I hope that the people, when they step up, realize that this is what that vote will mean, in my view, this year. I think that this is a different year—than last year.

Secretary WEINBERGER. I agree with you completely, Senator.

Senator RUDMAN. Thank you.

Senator STEVENS. Senator Chiles.

Senator CHILES. Mr. Secretary, I am glad what Senator Rudman said, in my view, in closing.

STABILITY OF MX PROGRAM

The upcoming vote on the MX has been characterized by you and others, Mr. Secretary, within the administration as a vote to kill the MX. Frankly, I think we all know that that is not true. In fact, regardless of the outcome of the vote we will continue the MX Program, we will continue our MX Test-Flight Program, we will begin production of the 21 missiles approved in fiscal year 1984. We have already obligated funding for the long-lead materials necessary for future production, if additional production proves necessary.

More importantly, I have been advised, defense contractors close to the MX Program have said that because the Senate provided these long-lead fundings in fiscal year 1985 there has been no effect on the future production schedules to date, and they don't feel that there would be any effect on a delay until at least fiscal year 1987, well into fiscal year 1987.

The fact of the matter is that we do have some time so we are not going to kill the MX.

Secretary WEINBERGER. Senator, if contractors are telling you that they are as bad as some of the other ones we deal with, because those facts are just not correct, I am sorry to say.

We have a situation in which we have indeed gotten 21 authorized and appropriated for, and we are working on them, we are testing them, as we have said. We have a production line ready, and a production line that would have to be closed down if the 21 that are now pending before you, that were approved last year, but are fenced—

Senator CHILES. No, sir; the funds are in there, so the production line would not have to be closed.

Secretary WEINBERGER. A production line for what, Senator? The production line may not have to be closed down because of lack of funds, it is closed down because we don't have anything more for it to do. We can't do anything we are not authorized to do.

Senator CHILES. Mr. Secretary, it is interesting, so far, of the \$3 billion that we have authorized you for that missile, about \$150 million has now been obligated. So we are nowhere close to closing down any production line, and we are nowhere close to producing 21 missiles.

Mr. Chairman, I want to thank you for including a GAO witness tomorrow at our hearings, I think we are going to have some interesting hearings when GAO tells us how far along we really are on MX, and as to whether we are anywhere close to any kind of time.

GAO REPORT

Senator STEVENS. Senator, as long as this has been raised, and as long as you are here, let's get an understanding because I have to go to a funeral tomorrow. I said, we would include that witness on timeframe. I am not going to allow you or anyone else to drag in someone who is dealing with an incomplete report that the Defense Department has not verified yet, and allow these hearings to be turned into a sideshow as far as what GAO might say in a report that has not been signed by GAO.

If you can have them finalize that report so that GAO can stand behind it, that is one thing. This was a staff leak, and I think it was from your committee, your personnel staff as far as I can find out, and I am disturbed about it because I think it has led many people in the country to believe that GAO has taken a stand against the MX, which it has not taken. We checked that this morning.

If you want to have a subsequent hearing, we will do it, but we are not going to make this hearing concerning the \$1.5 billion, which was already appropriated, into a question about what the GAO has or has not said. I think that it is important that you understand that.

Senator CHILES. GAO is dealing with a continuing study of this, and the only thing that we have asked them, I think, Mr. Chairman, which I think is kind of legitimate to them, is what can they tell us at this time of where MX is. I certainly would hope that as we are going forward with this, this is the arm of Congress trying to determine and tell us what is happening. I hope you would not cutoff some testimony from GAO to give us an update of where they find, as Congress' arm, the MX is today.

Senator STEVENS. If the GAO is prepared to take a position as the GAO and defend it, Senator Rudman has agreed to chair the hearing tomorrow, we will listen to their witness. But if it is just another one of these leaks that we went through once before on Honduras and a lot of other things, that is not within the scope of this hearing as to whether or not we release the \$1.5 billion that was already made available for this program.

Senator CHILES. I don't want GAO to tell us anything that GAO doesn't believe.

Senator STEVENS. We are looking at the \$1.5 billion and should it be released, not at the status of the GAO's review of the MX system in and of itself.

OBLIGATION OF FUNDS FOR MX MISSILE

Secretary WEINBERGER. Mr. Chairman, in furtherance of what you said, 90 percent of the available funds for the MX will be obligated by the end of this month, March 31.

Senator STEVENS. That is my information, and I will put it in the record here. I will be glad to show it to the Senator. As of March 31, 1985, there is obligated \$930.6 million, and we have been told that a supplemental will be required—both options in this include a requirement for a supplemental appropriation by April 1, 1985.

Senator CHILES. I won't question at all how much has been obligated. I might have misspoke if I said, obligated. My understanding

is that \$150 million has been expended of what we are talking in obligations.

Again, I think, in the context that we were talking about, as to whether or not this production line is going to be closed overnight, if we have only expended \$150 million out of \$3 billion, even though \$930 million has been obligated, we are talking about whether the funds are finished or gone.

Secretary WEINBERGER. Mr. Chairman, you may wonder really why it is that we have to debate all this, and have this issue coming up so early in the session, it is because the funds that have been appropriated, that have been authorized, will run out by March 31, just as you said. This is the reason that we have to do it this month. We are not going to have any kind of cushion such as Senator CHILES is talking about.

Senator STEVENS. You are dealing with obligation of funds as far as continuing the production line.

Secretary WEINBERGER. Once they are obligated, they are gone. Then you have, of course, the factors involved in the production, and when you run of funds, you can't keep things going. We have not and do not spend any money that we are not authorized to spend.

Senator CHILES. If you have appropriated \$3 billion, and if you obligate all of it, if you only spend \$150 million, my arithmetic tells me that you have \$2.850 billion left to spend. Until that money is sort of spent, then the program is still going on. The production is not dead, and the production lines will still be going on. There will still be some missiles coming out of there.

Secretary WEINBERGER. We have spent a great deal more than you mention, Senator. We have spent \$13 billion over the years. The amount that has been authorized and appropriated has been obligated by 90 percent by the end of this month.

Senator STEVENS. We had \$1 billion that could be spent, and it is almost fully obligated. The other \$1.5 billion is the subject of the resolution before us, not that \$1 billion but the \$1.5 billion, as to whether it can be committed to production.

Secretary WEINBERGER. Exactly.

Senator STEVENS. The 1984 money has almost been obligated is what I am told.

Secretary WEINBERGER. That is right, and that takes it out of the Treasury. It effectively means that this is why we have to debate and discuss this issue so early in the session, the funds run out.

Senator CHILES. I don't think obligations take money out of the Treasury. I think money is taken out of the Treasury when it is spent.

Secretary WEINBERGER. If you had ever tried to deobligate funds, Senator, that have been obligated, you would see what some of those contractors you have been talking to say. They have lawyers, and there are courts, and the money is gone, that is all.

Senator CHILES. Mr. Secretary, my concern is, again, that the debate has been characterized skillfully, I think, by you and by the administration as if the vote that we are talking about is a vote to kill MX. I don't think that is true at all.

I think the vote is to whether we are going to continue authorizing additional production, or whether we are going to take some

time to see that we test this missile properly, to see what happens as we go to Geneva, to see what happens.

My good friends, Senator Rudman and Senator Andrews, have kind of pointed out some problems where we put Divad in before we tested it, and some of the problems with that gun. I think that we should know some of those answers before we drop these missiles in the silos, as to whether we have flight-tested them properly, whether they are going to do what we think they are going to do, and that certainly has not been done yet.

I think the vote that we are getting ready to take is simply one of whether we are going to authorize further production or whether we are going to see how Midgetman comes along, whether we are going to see what happens at Geneva, whether we are going to see whether the administration comes up with a basing mode that is more realistic and would make more sense than to put these missiles into Minuteman silos, which we know are vulnerable, which does make them a very destabilizing weapon. Those are the things that I think that will be decided as we get into the debate on this issue.

Secretary WEINBERGER. Senator, we have not deployed Divad, and one of the reasons that we haven't is because Senator Rudman has very properly and correctly pointed out some of the problems with it. We are testing it, and its further procurement and any deployment will depend on the results of those tests.

With respect to the Peacekeeper, you say you would not be bringing the program to a halt, but I have to differ with you very respectfully, you would. You would be bringing to a halt the program after 21 missiles, and that is nowhere near the kind of balanced force that is essential. So you would be signaling to the world, to ourselves and to the Soviets, that we are through with the MX at 21, or that we had committed ourselves to paying something like twice what would otherwise be required.

I gave a lot of figures, I don't remember if you were here, as to the cost of the remaining part of the system, which came out at around \$7 billion. I would have to amend that very drastically if you stop now with the 21 that we have authorized and tell us that we can't go further with the next 21.

Senator STEVENS. Senator, your time has expired. I did add to it because I interrupted you, and I didn't mean to take your time.

General VESSEY. One point on that, Mr. Chairman.

Senator Chiles, this has been the most successful ICBM test program we have ever had, and it is important to understand that.

Senator CHILES. I am delighted to hear that, General, but I don't think you would say that this test program is complete.

General VESSEY. It is not.

Senator STEVENS. General, you haven't tested this any differently than you did Pershing II, did you? I remember all debate we got over that, and whether or not it was going to be deployed before it was successfully tested.

Senator CHILES. General, you said that all of the research tests would be completed before the deployment. My understanding is different from that, only 16 of the 20 research tests would be completed and no operational tests would be conducted before deployment.

General VESSEY. All the tests necessary to field an operational system will be completed. We continue to test the missiles for years after a system is deployed.

Senator STEVENS. Senator McClure.

TESTING AFTER DEPLOYMENT

Senator McCLURE. I want to follow up on that last point, General. Our testing program doesn't stop when a system is deployed.

General VESSEY. Exactly.

Senator McCLURE. How long did you test other missiles after they were deployed?

General VESSEY. We continue to give the Minuteman reliability tests today, 20 years after it was deployed.

Senator McCLURE. The same was true of the earlier missile; is that not correct?

General VESSEY. That is correct.

Senator McCLURE. I suspect that most of the debate has already touched on the essential issues, but let me focus on a couple of things that have not been mentioned here today.

U.S. DETERRENT STRATEGY

Our strategy still remains mutual, assured destruction, does it not, our deterrent strategy?

Secretary WEINBERGER. Our strategy remains to be able to deter an attack upon us by having a sufficient degree of retaliatory force to discourage an attack in the first place.

Senator McCLURE. You say it different, but it is commonly known among the trade, if I might, as saying that they can't strike us because we can strike them too hard if they do.

Secretary WEINBERGER. Right.

Senator McCLURE. I know the terms have different definitions in different circles.

Secretary WEINBERGER. Deterrent strategy, deterrent defensive strategy, not an aggressive strategy, there are all kinds of different ways of phrasing it.

Senator McCLURE. That means that to be effective, the deterrent must be present not in our mind, but our capacity to deter must be present in their mind.

Secretary WEINBERGER. Exactly, and that is the difficulty of computing it.

SOVIET INCREASE IN WARHEADS

Senator McCLURE. A large part of the debate over missile deployment and weapons development of strategic weapons has been over how much is enough. The argument that I hear given to us by a good many people is that we already have enough, adding numbers makes no difference.

What has been the trend in the numbers of warheads and strategic systems on the side of the Soviet Union since SALT I?

Secretary WEINBERGER. Steadily up.

Senator McCLURE. As a matter of fact, massively up; isn't that correct?

General VESSEY. Yes.

Secretary WEINBERGER. They have deployed six times the MX-type ICBM missiles that is contemplated by the MX Program since those two treaties were signed.

Senator McCLURE. That SALT I and SALT II treaties dealt primarily with systems and not deliverable warheads.

Secretary WEINBERGER. Right.

Senator McCLURE. This is totally true with respect to SALT I, is it not?

Secretary WEINBERGER. Yes.

Senator McCLURE. One of the reasons that we were comfortable with SALT I and its provisions was that we had a MIRV'd missile, and they did not, and we didn't think they could get that done in the period of time that was covered by the treaty. Is that not correct?

Secretary WEINBERGER. Yes, sir.

Senator McCLURE. As a matter of fact, they surprised us by the rapidity with which they were able to develop and deploy a MIRV'd system.

Secretary WEINBERGER. That is true, and a large part of it, I think, developed from the amount of our technology which was either sold to them or which they stole.

Senator McCLURE. It isn't any longer sufficient to talk about systems without also talking about the deliverable warheads or the yield of the warhead.

Secretary WEINBERGER. Indeed, because that, of course, is a major factor in the destruction of numbers of targets.

Senator McCLURE. I have a chart, which I don't know if you can see from there, but the lower chart is a timeline from 1960 to 1985, and the dark line is U.S. ICBM reentry vehicles, in English that is warheads.

Secretary WEINBERGER. Yes.

Senator McCLURE. The dotted line is Soviet warheads. The vertical lines on the chart, one is the year 1972 and the SALT I Treaty, the second vertical line being 1979 and SALT II. It is obvious from that line that at the time of the SALT I, the United States and the Soviet Union were roughly comparable in numbers.

Secretary WEINBERGER. Yes, sir.

Senator McCLURE. Halfway between the two, the Soviet Union began very, a very rapid buildup of reentry vehicles, that continued through SALT II, and has continued afterwards.

Secretary WEINBERGER. Absolutely, and that is what is attempted to be portrayed on that chart we had up a moment ago.

Senator McCLURE. That chart showed delivery systems, and this chart shows the result of those systems in terms of delivered warheads.

Secretary WEINBERGER. Yes, just as that chart shows complete inactivity on our part during the 1970's.

Senator McCLURE. If as a matter of fact, numbers don't matter, why would the Soviet Union do that?

Secretary WEINBERGER. Numbers do matter.

Senator McCLURE. It seems to me to be obvious that at least they matter to the Soviet Union. If deterrence is a matter of their frame of mind, not necessarily ours but their frame of mind, and numbers

matter to them, then if deterrence is to continue to be a viable strategy—and necessary to our security, we have to talk about numbers as well.

Secretary WEINBERGER. We do indeed, sir, and even beyond numbers, we have to talk about the accuracy of those numbers and their deliverability.

Senator McCLURE. There have been two things that have been added since we went into this debate over the last year, at least. One, which the Senator from New Hampshire has mentioned, I think is perhaps most significant single factor, we have now started negotiations for an arms limitation treaty.

Secretary WEINBERGER. Yes.

Senator McCLURE. It doesn't seem to me that in the midst of that process that just started, you suddenly change the course of events unilaterally to their advantage and to our disadvantage. I can't think of a thing that the Soviet Union would like better than us to start a process of unilaterally disarmament but as we start to talk about disarmament.

Secretary WEINBERGER. I agree, and that is the great worry that, in effect, they will win the negotiation before it starts.

SOVIET TREATY BEHAVIOR

Senator McCLURE. The second thing that has happened over the last year and much less significant, but nevertheless I think one that I think is important to mention today, we understand better the consequences of Soviet treaty behavior, compliance or noncompliance.

Secretary WEINBERGER. Exactly.

Senator McCLURE. There has been more information available to the public to enter this debate as to the relative positions of the United States and the Soviet Union, and sometimes treaty compliance affects the relative balance. Is that not correct?

Secretary WEINBERGER. That is absolutely correct. It is not just strategic treaties or missile treaties, it is chemical treaties and all the rest.

SOVIET MISSILES AFFECTED BY TREATIES

Senator McCLURE. You mentioned a moment that without looking at such things as Soviet reload capability, reload and refire capability which is at least peripherally affected by the SALT treaties, prohibited by the SALT treaties. The second question with respect to the mobile SS-16's they are affected by existing treaties and are affected by Soviet Union compliance or noncompliance in terms of the number of systems and the number of warheads which they can deliver.

I note two press reports, and I emphasize, press reports, that the Soviets have 14 warheads on each heavy SS-18, and that has to do with numbers. The press reports, again, of a mobile SS-25 that they are about to deploy. Additional systems, additional warheads, additional compliance questions with respect to existing treaties.

The reason I mention this, Mr. Secretary, is that there is somehow a notion that all the MX is either, in the words of one Senator, a mindless escalation of numbers, which is by that definition at

least unacceptable, or, in the second place, irrelevant because they are vulnerable in spite of the fact that even if you only have 10 percent of the force survive, 10 percent surviving MX is worth a lot more than 10 percent of surviving Minuteman III.

Secretary WEINBERGER. Yes, sir.

Senator McCLURE. So we get back into the question of deterrence as viewed by the Soviet Union, as shown by their emphasis on deliverable warheads, in spite of, and sometimes in violation of, the obligations of SALT I and SALT II. Is that not correct?

Secretary WEINBERGER. Yes, sir.

Senator McCLURE. It seems to me that it would be inescapable that the case, if it was a good case year ago, for the continuation of an MX missile program is irrefutably stronger today than it was a year ago.

Secretary WEINBERGER. I think this is a very brilliant, if I might say so, exposition of exactly the position, yes, sir.

Senator McCLURE. Thank you very much, Mr. Secretary.

Thank you, Mr. Chairman.

OBLIGATION OF AUTHORIZED FUNDS

Senator STEVENS. Mr. Secretary and General, going by the information received by the subcommittee, as of December 31, 77.6 percent of the 1984 procurement authorization had been obligated. The estimate that we have is that by March 31, 92.7 of all moneys authorized for 1984 procurement will have been obligated, and 99.2 percent of the \$1 billion that was not fenced will have been obligated.

Secretary WEINBERGER. This is a more precise formulation, a more accurate formulation. We were just using 90 percent generally.

Senator STEVENS. As I understand it that means that as of April 1, you would be unable to continue the production line because of the first items entering that line, funds could not be obligated for them. Is that correct?

Secretary WEINBERGER. They could not be obligated, and that is why it is so vital and why I assume that the Congress, in the special order made up last year, set up March as the date.

Senator STEVENS. Precisely, when we had the debate, and I was part of that, and insisted that before April 1, we would put in the triggering mechanism so the President would trigger the time. We have very tight constraints. We cannot report this resolution in less than 8 days, nor more than 15 days, and when it gets to the floor, it has privileged status.

Secretary WEINBERGER. That is exactly right.

COST OF SUSPENDING MX PRODUCTION

Senator STEVENS. It is because of the timing of the funding for keeping that line going. I would like to go into that a little bit. Has anyone figured out what it would cost to suspend MX production if this money was not made available?

Secretary WEINBERGER. We have a number that we could get very precisely for you. You have termination costs for one thing, depending on the date of termination, and those are costs you pay

for which you receive absolutely nothing back. You would have a liability of somewhere in the neighborhood of \$500 million on April 30, if you terminated then. There are some recoverables that you could regain back, sales of, in effect, spares or scraps, things of that kind, although there is a fairly limited market for it, but you would get something back.

You have a very substantial cost for which you receive absolutely nothing if you terminate, and you also end up with a truncated and unusable system.

Senator STEVENS. It has got to be one of your best one-liners, you know, I am not sure that there is any other market.

TERMINATE MX PRODUCTION AT 21

Let me ask this one question, and it is really almost the last one. If that decision were made, it would be a decision to terminate the MX at 21, would it not?

Secretary WEINBERGER. Really it would, that is exactly right. That is what we are trying to tell Senator Chiles that that is unfortunately the case, and that is the signal that goes around the world.

Senator STEVENS. The original production was scheduled for 200, and that was changed to 100.

Secretary WEINBERGER. Yes.

BASING MODE QUESTIONS

Senator STEVENS. We have an interim deployment mode by putting these in the Minuteman silos.

Secretary WEINBERGER. Right.

Senator STEVENS. It still is interim, is it not?

Secretary WEINBERGER. Sure.

Senator STEVENS. You are exploring, I understand, several other basing modes?

Secretary WEINBERGER. We are, indeed, and reporting them regularly, and Congress has been generous in voting money to explore those alternate modes.

Senator STEVENS. I remember so well one time when I attended a hearing with my late good friend, Senator Jackson, he asked for the Soviet representatives in the audience to stand up. I was tempted to do that today, but I don't think I will do it, there are some here. I don't think that the wrong impression ought to come out of this hearing. We are involved in a very serious matter of trying to determine whether or not Congress should not unfence the moneys that were made available for the continued production of this leg of our triad.

Senator ABDNOR, did you have additional questions?

Senator ABDNOR. No; Mr. Chairman.

Senator STEVENS. I think that everyone, as I indicated to the Senator from Florida, ought to keep the limitations of this hearing. The sole question before us is whether we should unfence the funds, and that is something that is not amendable, it cannot be delayed, it must be voted up or down within a specific time frame by the Congress. I think at this point to get involved in other

issues, which of necessity must come up in connection with the 1986 request, would be improper.

TESTING OF PERSHING MISSILE SYSTEM

As I understand it, General, as far as the Pershing was concerned, we actually authorized production before testing was completed there, substantial production as a matter of fact. This testing mode for MX is not irregular in term of military practice in this country.

General VESSEY. No.

Senator STEVENS. You have an on-going testing program for the MX just as you do for the Pershing.

General VESSEY. That is correct.

CONCLUDING REMARKS

Senator STEVENS. I think we must keep the focus of this—I must say I am indebted to my good friend from New Hampshire who has agreed to chair the hearing tomorrow as we continue with the witnesses tomorrow, as I must be gone, and I regret that. We do have to get the hearing in because we leave for Geneva on Saturday, and when we return we look forward to having a full committee meeting on the subject as is required by the legislation of the last Congress.

Do you have anything further to add, Mr. Secretary?

Secretary WEINBERGER. I would just like to thank you and the members of the committee for a very courteous and very fair hearing. I appreciate greatly the opportunity to be before you.

Senator STEVENS. Thank you. We thank you, too, General, it is a pleasure to see you back again before the subcommittee.

SUBMITTED QUESTIONS

The committee has additional questions which we will submit to you for response. They will be included in the record at this point.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR STENNIS

MX COSTS

Question: Please provide for the record a detailed analysis of MX costs, including those costs associated with earlier basing modes, by fiscal year, appropriation and function (i.e. flyaway, basing, etc.). Please also provide a corresponding estimate of projected obligations by month for this next 12 months.

Answer: Figure 1 shows Peacekeeper total costs since FY 75 projected through program completion in each appropriation category. Figure 2 shows a detailed breakout of the current Peacekeeper program, including the FY 85 first and second increments, the FY 86 request, and costs to complete. Figure 3 shows cumulative Peacekeeper obligations for RDT&E and procurement by fiscal year through the end of FY 85:

M-X FUNDING MATRIX
Date: 8 March 1985

Program Year	RD&E (3600)		PROCUREMENT (3020)		CONSTRUCTION (3300)		TOTAL		PEACEKEEPER Costs Only 2
	Budget Authority	Qty	Budget Authority	Qty	Budget Authority	Qty	Budget Authority	Qty	
FY 1974	4.5						4.5		
FY 1975	39.5						39.5		
FY 1976	36.0						36.0		
FY 1977	81.6						81.6		
FY 1978	134.4						134.4		
FY 1979	308.2						308.2		
FY 1980	670.0						727.1		
FY 1981	1491.6				57.1		1504.7		
FY 1982	1898.9				13.1		1909.9		
FY 1983	2396.6				11.0		2413.3		1929.3
FY 1984	1962.6	21	2153.5	21	16.7		4147.3	21	4147.3
FY 1985	1699.7	21	1000.0	21	31.2		2795.4	21	2795.4
Transfers			1500.0 ¹		95.7		1500.0		1500.0
Subtotal thru 1985	10723.6	42	4653.5	42	224.8		15601.9	42	10372.0
FY 1986	284.1	48	3180.3	48	55.8		4020.2	48	4020.2
FY 1987	360.6	48	2798.3	48	58.8		3217.7	48	3217.7
FY 1988	44.0	48	2391.3	48	20.3		2455.6	48	2455.6
FY 1989	17.4	37	1500.1	37			1517.5	37	1517.5
FY 1990			64.2				64.2		64.2
FY 1991									
FY 1992									
FY 1993									
FY 1994									
TOTAL	11929.7	223	14587.7	223	359.7		26877.1 ²	223	21647.2

1 Reflects transfer of prior year funds to finance the 21 missiles authorized.
2 Peacekeeper costs as identified in the Scowcroft Commission Report and the SAR eliminate costs associated with prior basing modes.

FIGURE 1

PEACEKEEPER ICBM - FUNDING PROFILE
(\$ IN MILLIONS)

FISCAL YEAR EST OR ACT	1984 PRIOR	(1) 1985A ACT	(2) 1985B EST	1986 EST	TO COMPLETE	TOTAL EST
3600-RDT&E						
PEACEKEEPER	3875.2	1699.7	0.0	784.1	422.0	6781.0
3020 PK PROC						
BUY SCHEDULE						
MISSILE	(21)	(21)	(0)	(48)	(133)	(223)
BASING	(4)	(17)	(12)	(33)	(34)	(100)
FLYAWAY	1621.1	60.0	1039.0	1945.2	4930.9	9596.2
OTH WPN SYS	146.4	363.0	236.0	543.7	905.7	2194.8
SUPPORT	308.2	429.0	225.0	548.4	879.6	2390.2
TOT WPN SYS	2075.7	852.0	1500.0	3037.3	6716.2	14181.2
INITIAL SPARES	77.8	148.0	0.0	143.0	37.7	406.5
3020 TOTAL	2153.5	1000.0	1500.0	3180.3	6753.9	14587.7
3300 PK MILCON	47.9	95.7	0.0	55.8	79.1	278.5
PK ACQUIS	6076.6	2795.4	1500.0	4020.2	7255.0	21647.2

(1) FY 85 FIRST INCREMENT

(2) FY 85 SECOND INCREMENT CONTINGENT ON CONGRESSIONAL
RELEASE - APR 85

AS OF 1 MARCH 1985 - FROM THE FY 86 PRESIDENT'S BUDGET

FIGURE 2

PEACEKEEPER OBLIGATIONS - CUMULATIVE
(\$ - M)

	RDT&E (3600) (FY 83, 84, 85)	Procurement (3020) (FY 84, 85)
AS OF:		
Prior Years	4544	1726
January 85	4919	1917
February 85	5130	2104
March 85	5381	2768
April 85	5471	2776
May 85	5622	3956
June 85	5653	3959
July 85	5829	3960
August 85	5860	3961
September 85	6010	3962

FIGURE 3

MX Cost Analysis

Question: Please provide for the record a detailed analysis of MX expenditures, showing expenditures to date, by fiscal year and appropriation. Please also provide an estimate of these expenditures by month for the next 12 Months. Please, also breakout this data by flyaway, basing, support, etc.

Answer: Figure 1 shows cumulative Peacekeeper expenditures for RDT&E and procurement by fiscal year through the end of FY 85:

PEACEKEEPER EXPENDITURES - CUMULATIVE
(\$ - M)

	RDT&E (3600) (FY 83, 84, 85)	Procurement (3020) (FY 84, 85)
AS OF:		
Prior Years	3136	98
January 85	3302	164
February 85	3513	340
March 85	3704	511
April 85	3861	584
May 85	4029	645
June 85	4194	748
July 85	4390	836
August 85	4560	912
September 85	4719	1011

FIGURE 1

\$1.5 Billion of Transferred Funds

Question: Please include as a separate identifiable line, data relating to the \$1.5 billion of transferred funds provided by the Congress.

Answer: Figure 1 shows the breakout of FY 85 second increment funds (\$1.5B). Figures 2 and 3 include obligation and expenditure data for the FY85 second increment through the end of the fiscal year:

PEACEKEEPER ICBM - FUNDING PROFILE
(\$ IN MILLIONS)

FISCAL YEAR	1984	(1)	(2)	1986	TO	TOTAL
EST OR ACT	PRIOR	1985A	1985B	EST	COMPLETE	EST
3600-RDT&E						
PEACEKEEPER	3875.2	1699.7	0.0	784.1	422.0	6781.0
3020 PK PROC						
BUY SCHEDULE						
MISSILE	(21)	(21)	(0)	(48)	(133)	(223)
BASING	(4)	(17)	(12)	(33)	(34)	(100)
FLYAWAY	1621.1	60.0	1039.0	1945.2	4930.9	9596.2
OTH WPN SYS	146.4	363.0	236.0	543.7	905.7	2194.8
SUPPORT	308.2	429.0	225.0	548.4	879.6	2390.2
TOT WPN SYS	2075.7	852.0	1500.0	3037.3	6716.2	14181.2
INITIAL SPARES	77.8	148.0	0.0	143.0	37.7	406.5
3020 TOTAL	2153.5	1000.0	1500.0	3180.3	6753.9	14587.7
3300 PK MILCON	47.9	95.7	0.0	55.8	79.1	278.5
PK ACQUIS	6076.6	2795.4	1500.0	4020.2	7255.0	21647.2
(1) FY 85 FIRST INCREMENT						
(2) FY 85 SECOND INCREMENT CONTINGENT ON CONGRESSIONAL RELEASE - APR 85						

AS OF 1 MARCH 1985 - FROM THE FY 86 PRESIDENT'S BUDGET

FIGURE 1

PEACEKEEPER OBLIGATIONS - CUMULATIVE
(\$ - M)

	RDT&E (3600) (FY 83, 84, 85)	Procurement (3020) (FY 84, 85)
AS OF:		
Prior Years	4544	1726
January 85	4919	1917
February 85	5130	2184
March 85	5381	2768
April 85	5471	2776
May 85	5622	3956
June 85	5653	3959
July 85	5829	3968
August 85	5860	3961
September 85	6018	3962

FIGURE 2

PEACEKEEPER FY 85 OBLIGATION FORECAST

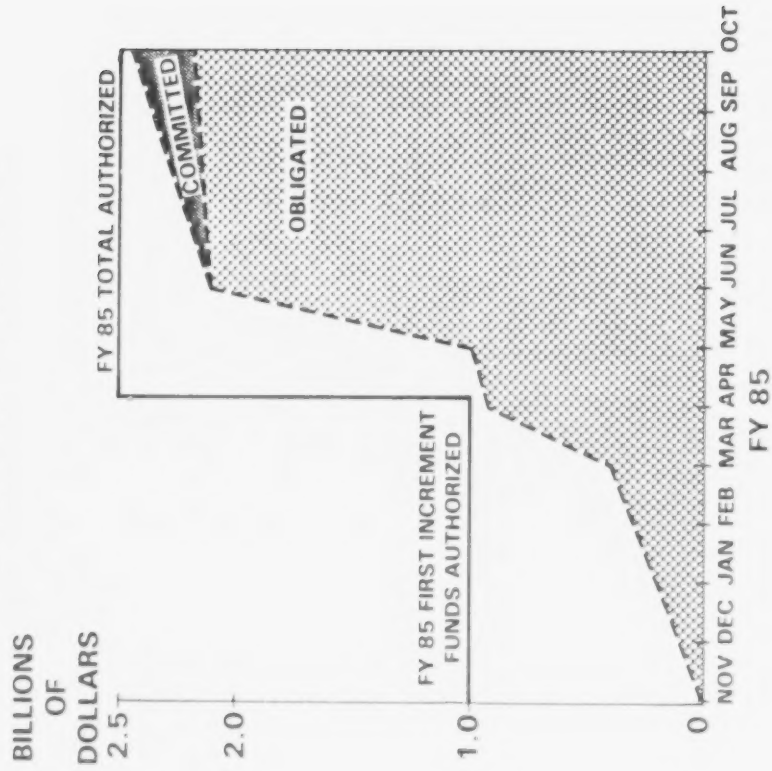


FIGURE 3

QUESTIONS SUBMITTED BY SENATOR BUMPERS

MX Bargaining Chip

Question: The Soviet proposal on the table in Geneva when the START talks recessed in late 1983 would allow the US to deploy 680 MX missiles. Doesn't the fact that the Soviets' own proposal would allow us to deploy almost seven times as many MX as we are planning to strongly suggest that MX isn't very effective as a bargaining chip?

Answer: The Peacekeeper is not now nor has it ever been a bargaining chip to be negotiated away in exchange for Soviet concessions. The Peacekeeper must be deployed to rectify potentially dangerous weaknesses in our strategic deterrent. The Peacekeeper will make an important contribution to the realization of an effective arms reduction agreement by making it clear to the Soviet leadership that the United States is willing to take the steps necessary to maintain a strategic balance and that, therefore, they ultimately have nothing to gain by continuing their military build-up.

MX Bargaining Leverage

Question: You have said on several occasions that we need to deploy all 100 MX missiles. If the Administration has no plans to deploy any more than 100 missiles, then what is there to bargain with? What in the MX program would we give up in order to get the Soviets to give up on something?

Answer: Arms control negotiations do not, in general, consist of provisions wherein each side gives up a series of specific systems in direct trades. Instead, they usually consist of agreed, overall limits that govern different categories of systems; both sides are free to determine their own force structures within those overall limits. However, we have never intended to "bargain away" the Peacekeeper program as it will be accommodated within the reduced ceiling established by our arms reduction proposal, which seeks to redress the imbalance of strategic forces.

The Peacekeeper is needed militarily to redress an existing Soviet advantage in the ability to destroy hard targets promptly. It is also needed to demonstrate US determination to prevent the Soviets from gaining such advantages through unilateral actions in the future. In the absence of such resolve, they would have little incentive to agree to deep reductions from existing levels of nuclear forces, particularly in the most destabilizing systems.

Replace the MX with D-5

Question: Given the constant improvements in Soviet ICBM accuracy, MX missiles based in silos would have only 1-2% survivability by the early 1990's -- that's 1 or 2 missiles surviving for \$25 billion. The D-5 missile will have very high survivability because it will be based in submarines. Won't the D-5 give us much more bargaining leverage than MX?

Answer: No. The contributions of Peacekeeper (MX) and the D-5 must be considered in the context of the TRIAD. The Peacekeeper adds needed near-term, prompt, hard-target capability

to the US ICBM force--initial operating capability will be achieved in 1986, with full deployment completed in 1989. Continued Peacekeeper production will demonstrate to the Soviet leadership that we are committed to maintaining the strategic balance. It will also convince them that they must negotiate reductions in arms in Geneva rather than waiting for the U.S. to make unilateral cuts in its forces. The D-5 missiles, on the other hand, will not be deployed until the end of 1989, with subsequent missiles entering the force as new submarines are produced after that date, and as existing TRIDENT SSBNs are retrofitted with the D-5.

Further, as the Scowcroft Commission noted, the survivability of the US strategic TRIAD should be viewed in the context of our TRIAD of ICBM weapons, submarine-launched ballistic missile weapons, and bomber weapons, all supported by our warning system and command and control system. The Soviets can have no confidence that they can attack our land-based system and be immune from retaliation from our submarine and bomber forces, nor can they have confidence that they can attack bomber bases with their submarine forces and escape retaliation from our ICBMs. If all of our deterrent force were in ICBMs, the vulnerability of fixed missile silos would be a more serious issue. They are not; we have only about 25 percent of our warheads in ICBM silos. Additionally, each of these weapon systems brings a unique capability to the TRIAD. To depend on a single ballistic missile system like the D-5 would weaken the TRIAD and not, among other things, furnish more bargaining leverage for our negotiators in Geneva.

Replace Peacekeeper with Trident II D-5

Question: If it is necessary to have a MIRVed missile in silos, why not save a lot of money and put the D-5 in silos? It would be just as accurate, silo-based, as MX, and we would only have to have one production line, not two, saving billions.

Answer: The Strategic Forces Technical Assessment Review Report published by the Department of Defense in March 1983 (this Report furnished the technical input to the President's Commission on Strategic Forces) examined the potential of developing a common missile to satisfy both Air Force and Navy ballistic missile requirements. At that time, neither the D-5 nor the Peacekeeper satisfied both operational requirements, a problem that still exists today.

While it is technically possible to redesign portions of the Trident II D-5 missile to accommodate some of the Air Force's requirements (e.g. increase its in-flight hardness to nuclear effects), such design changes would bring the D-5 program to a halt and would not satisfy all Air Force missile requirements. These major design changes would be costly and would delay the program by several years, meanwhile the U.S. is thwarted from redressing the current imbalance in strategic forces.

Further, normal management and cost effective decision would be delayed because of the complexity of interfaces that must satisfy two major weapon systems launch platforms--the submarine and the silo. In addition to hardness; guidance system accuracy and reliability during fly out (land-based missiles would be exposed to more severe nuclear environment which impact the D-5's steller update subsystem); basing; and common command, control and communication interfaces are additional concerns.

Thus, on the margin, it is very doubtful that a switch to a common missile would save any funds. It may in fact cost more considering the current investment in Peacekeeper and Trident II thus far. More importantly, however, such a substitution would leave unaddressed our two primary concerns with regard to stability.

The Trident II D-5 is currently a "paper missile" existing only on engineers' drawing boards. Its first test flight is not scheduled until 1987 and is not projected to meet its initial operational capability until late in 1989 or at about the time Peacekeeper reaches its full operational capability. Thus D-5 will not provide a near-term counter to the current strategic imbalance of forces nor will it provide the arms control leverage for our negotiators in Geneva.

The 5000 RV Limit

Question: The Reagan Administration made a real contribution to arms control by putting the focus on limiting warheads and not launchers. Under the 5000 RV limit we proposed in Geneva, wouldn't 100 MX, with 10 RVs, use up 1000 of the 5000 limit, thereby crowding out other more survivable weapons?

Answer: The 5000 ballistic warhead limit we seek will allow deployment of a sufficient number of ICBMs and SLBMs in addition to 100 MX missiles. Survivability cannot be viewed in isolation; it can only be assessed in terms of the whole strategic Triad. Each component of the Triad has different strengths. We cannot, and should not, require all of the components to have all of the same capabilities. If we did so, we could end up fielding no forces at all because none of them in themselves would or could possess all of the characteristics we seek for our strategic deterrent.

Silo-Based MIRVs Destabilizing

QUESTION: Doesn't deploying MX in silos undercut the arguments we make to the Soviets about silo-based MIRVed missiles being destabilizing?

ANSWER: No, it is the vast Soviet deployments of strategic systems that is destabilizing. Their accumulation of vast military power, coupled with current advantages in strategic forces, could--if unchecked--result in the Soviet leadership becoming far more confident about using its political and military leverage to exert influence against the United States and other nations around the globe. In contrast, the deployment of 100 Peacekeeper missiles in existing Minuteman silos will bring a measure of stability to the strategic balance and reverse these dangerous and destabilizing trends.

While the Peacekeeper is a MIRVed system, we have limited its deployment to a point that is in keeping with stability. A limited deployment of 100 missiles (1000 weapons) will not give the Soviets legitimate grounds for fearing a first-strike from U.S. forces. With 100 missiles, U.S. strategic forces will fall far short of possessing a capability to place all key hardened Soviet assets at risk given their numbers and dispersal throughout

the USSR. But the deployment of 100 missiles is not so few as to be militarily insignificant to the Soviet leadership when they contemplate aggression.

SALT II Limits

Question: Yesterday General Davis, the head of the Strategic Air Command, told the Armed Services Committee that his personal view was that we should continue to stay within the SALT II limits. Would your personal view agree with that or disagree?

Answer: The U.S. made a commitment not to undercut existing arms control agreements so long as the Soviet Union showed equal restraint. We have lived up to this bargain. As indicated in the President's two reports to the Congress on Soviet noncompliance, however, the USSR has already violated provisions of the SALT II agreement. We are reviewing our policy at present, and are keeping all options open.

SUBCOMMITTEE RECESS

Senator STEVENS. We are recessing until 10 a.m., tomorrow on this subject.

[Whereupon, at 3:28 p.m., Thursday, March 7, the subcommittee was recessed to reconvene at 10 a.m., Friday, March 8.]

MX PEACEKEEPER MISSILE PROGRAM

FRIDAY, MARCH 8, 1985

U.S. SENATE,
SUBCOMMITTEE ON DEFENSE,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Warren Rudman, presiding.

Present: Senators Rudman, Kasten, Proxmire, Chiles, and Sasser; also present Senator Domenici.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

STRATEGIC AIR COMMAND

STATEMENT OF GEN. BENNIE L. DAVIS, COMMANDER IN CHIEF, STRATEGIC AIR COMMAND AND DIRECTOR, STRATEGIC TARGET PLANNING

ACCOMPANIED BY BRIG. GEN. GORDON E. FORNELL, U.S. AIR FORCE, SPECIAL ASSISTANT FOR ICBM MODERNIZATION, DEPUTY CHIEF OF STAFF, RESEARCH, DEVELOPMENT & ACQUISITION

Senate Joint Resolution 75

OPENING STATEMENT OF SENATOR RUDMAN

Senator RUDMAN. The subcommittee will be in order.

Our chairman, Senator Stevens, could not be here today and asked me if I would chair this hearing for him this morning.

We are continuing today on the Defense Subcommittee review of the fiscal year 1985 production program for the MX, or Peacekeeper Missile Program. This is in preparation for committee action in about 10 days on Senate Joint Resolution 75. This is one of two resolutions that Congress must approve this month to release the \$1.5 billion made available last year to procure 21 new operational MX missiles.

Yesterday we heard testimony from the Secretary of Defense, Caspar Weinberger, and Gen. John Vessey, Chairman of the Joint Chiefs of Staff.

INTRODUCTION OF WITNESSES

Today we will begin with Gen. Bennie Davis, Commander-in-Chief of the Strategic Air Command, and then go to Ambassador Paul Nitze of the U.S. Arms Control and Disarmament Agency.

We will conclude as time permits with a witness from the General Accounting Office, Mr. Harry Finley, to cover that agency's preliminary review of the MX Program.

HEARING PROCEDURE

Again today, all members of the full Appropriations Committee have been invited to this hearing, and we will continue to follow the 5-minute limitation on questions so that each member will have a full opportunity to participate.

We hope Senators and witnesses alike will keep their questions and answers concise and to the point, although I will say to my friend from Wisconsin that we will broaden that a bit if the attendance appears to remain what it is right now. With that in mind, we will ask General Davis to proceed.

We have your prepared statement, General Davis. You may present your oral summary as you see fit. Then we will go into questions.

STATEMENT OF GENERAL DAVIS

RELEASE OF PRODUCTION MONEY FOR MX

General DAVIS. Thank you, Mr. Chairman.

I appreciate the opportunity to discuss an important subject and that is the release of the production money for the MX.

I will summarize briefly my statement and ask that my full statement be entered into the record.

It is a pleasure to be here today to discuss the operational requirements necessary to ensure that our strategy of deterrence remains credible. Today the primary challenge to our national security is the vast military arsenal of the Soviet Union.

Through massive buildup that encompasses qualitative as well as quantitative improvements for both offensive and defensive strategic systems, the Soviets are now significantly altering the critical components of the overall strategic balance.

Fortunately, we recognize the risks inherent in a strategic imbalance and are in the midst of a comprehensive strategic modernization program. I cannot overemphasize enough my full support for this program which has already produced significant improvement in our strategic retaliatory capability.

It is absolutely essential that we continue this effort to modernize our strategic forces, all legs of our strategic triad, the MX, the small missile, the D-5 submarine-launched ballistic missile and the B-1 and advanced technology bomber.

GOALS IN STRATEGIC MODERNIZATION PROGRAM

We are on the verge of achieving strategic goals in our strategic modernization program. To ensure these goals are reached, it is vital we sustain the momentum we have worked so very hard to achieve. Nowhere is this more true than in the case of MX deployment. It is extremely important that the Congress vote to release the fiscal year 1985 MX funds, approve the fiscal year 1986 funding request and allow us to complete this critically needed program.

Today the Soviets can significantly threaten our ICBM force while we have only a limited capability to place their ICBMs at risk. The Soviet advantage, more than any other factor in the current strategic situation undermines stability and threatens peace by allowing the Soviets to believe their political objectives can be successfully attained through the use of coercion or force.

MX represents the best, the only near-term solution to redress the present imbalance in prompt time urgent capability against hardened targets. It is an urgent military requirement that is absolutely essential to reduce the current disparity between the United States and the Soviet strategic forces.

U.S. RETALIATORY CAPABILITY

Let me emphasize the need for prompt retaliatory capability so it not be misunderstood. Deterrence and not fighting a war is the overriding reason for MX deployment. Deployment of 100 MX missiles with 10 warheads each will raise doubts in the minds of the Soviet war planners as to the success of their initiating an attack.

It is that doubt within the Soviet planner that is indeed the very essence of nuclear deterrence. However, 100 MX's do not represent a destabilizing preemptive potential because the proposed deployment cannot approach capability to place the majority of the high value Soviet targets at risk.

Still MX can convincingly threaten enough of these targets to serve its purpose of deterrence. For over a decade we have searched for a perfectly survivable ICBM basing mode. While survivability is certainly a vital concern, the essence of deterrence is capability, not vulnerability.

SURVIVABILITY OF MX AGAINST FIRST STRIKE

The whole question of window of vulnerability that was raised some years ago did not relate specifically to the vulnerability of missile silos. Instead it had to do with the overall Soviet strategic nuclear force capability and the Soviets overtaking and surpassing our own U.S. capability.

Nevertheless, since 1976 much of the debate over MX deployment has consistently focused on the survivable basing issue. The situation, however, I am pleased to say, has changed since then.

The individual missile's survivability is better than we projected and can be further enhanced. Improved and survivable warning systems that incorporate dual phenomenology and more timely warning are with us today.

Improvements approved by the Congress to our command, control and communications network provide a higher level of confidence to communicate with our alert crews. I, as the operational commander of two legs of that strategic triad, am convinced today I can communicate with the crews even in a stressed environment.

HARDENING OF SILOS

Due to a better understanding of the inherent geology at Francis E. Warren, we have discovered that our existing silos are harder than we originally thought.

Furthermore, the research underway into hardening and super-hardening is going well and will permit us in the future to provide for higher hardness and better survivability.

MX TESTING PHASE

We are well into the MX testing phase. I am happy to note that it is the most successful ICBM program to date in the Air Force's history. After seven flight tests, the missile continues to perform exceptionally well, achieving accuracies which are better than our design requirements.

VALUE TO NEGOTIATIONS OF MX DEPLOYMENT

Finally, MX deployment is vital to achieving success in the upcoming and future arms negotiations. Through past experience we have learned that entering arms talks from a position of strength is a fundamental prerequisite for serious and meaningful negotiations with the Soviets.

In this regard, MX deployment is a key factor, it demonstrates national will in order to convince the Soviets that we are taking steps now to protect our vital national interests.

As the often quoted Scowcroft Commission report noted, and I believe the Scowcroft Commission report is the best piece of work done on the whole subject of nuclear deterrence in my 35 years of experience, as they noted:

It is illusory to believe that we can obtain a satisfactory agreement with the Soviets limiting ICBM deployment if we unilaterally terminated the only new U.S. ICBM program that could lead to deployment in this decade. Abandoning Peacekeeper at this time in search of a substitute would jeopardize, not enhance, the likelihood of reaching a stabilizing and equitable agreement.

MAINTAINING DETERRENT POSTURE

Today the greatest challenge we face is to prevent war and to preserve national security by maintaining the credibility of our deterrent posture. With the support of the Congress and the American people, I am confident we will continue to meet this challenge and promote a safer and more stable world.

I thank you for this opportunity to explain from an operational commander's point of view the cogent military requirements necessary to ensure a credible deterrent posture.

As I am sure you are well aware, as Commander in Chief, Strategic Air Command, I am responsible for the day-to-day control of two legs of that strategic triad and as the Director of the Joint Strategic Target Planning Staff, I am charged with the planning for all three legs of our strategic retaliatory forces.

It is from this perspective that I will be very happy to answer questions.

I have at my left our representative and MX program manager, the very knowledgeable Brig. Gen. Gordon Fornell.

Thank you, Mr. Chairman.

[The statement of General Davis follows:]

PREPARED STATEMENT OF GEN. BENNIE L. DAVIS
 COMMANDER IN CHIEF, STRATEGIC AIR COMMAND
 AND
 DIRECTOR, STRATEGIC TARGET PLANNING

Mr. Chairman and members of the Senate Appropriations Defense Subcommittee

I am pleased to be here today to share my views on our common goals of maintaining the freedom and security of this great nation. I appreciate the interest and concern of the Congress and I am confident that we will continue to make the decisions necessary to ensure these goals are preserved.

As a nation we are indeed fortunate to possess the inherent strengths that allow us to realistically aspire to a peaceful and free existence. Our economic and political strength as well as a strong national will to defend our vital interests combine to ensure we are able to meet our fundamental national security objective--preserving the U.S. as a free nation with our fundamental institutions and values intact.

As Commander-In-Chief Strategic Air Command I am responsible for the day-to-day operational control of two-thirds of our Triad of nuclear forces. As Director Strategic Target Planning I am also charged with planning for the execution of the entire Triad. It is from this perspective that I shall discuss the operational capabilities necessary to ensure our strategy of deterrence remains credible. For indeed, the cornerstone of our deterrent strategy--strategic nuclear forces--must have a capability that leaves no doubt in a potential aggressor's mind that he could not succeed by threatening or initiating aggressive acts against this nation.

Today, the primary challenge to our national security is the vast military arsenal of the Soviet Union. Through a massive military build-up encompassing qualitative as well as quantitative improvements to both offensive and defensive strategic systems, the Soviets are now significantly altering critical components of the overall strategic balance. This unprecedented build-up clearly exceeds legitimate defense of the Soviet homeland. If this build-up is allowed to continue unchecked, there is a real danger that the Soviets will come to perceive that they have the strength to pursue their political objectives through military means.

Clearly, any altering of the strategic balance in the Soviet's favor poses a significant threat to stability and peace. Not only does this increase the risk of nuclear coercion, it also allows the Soviets to feel more secure in using their already superior conventional forces to achieve their goals.

Fortunately, the President, the Congress and the American people recognized the risks inherent in a strategic imbalance and in 1981 embarked on a comprehensive strategic modernization program. I cannot emphasize enough my full support for this program which has already produced significant improvements in our strategic retaliatory capability:

- We have now equipped five B-52G squadrons with Air-Launched Cruise Missiles (ALCM) and have armed one B-52G squadron with Harpoon anti-ship missiles.

The effectiveness of our Minuteman force has been enhanced through accuracy and connectivity improvement programs.

- Ongoing deployment of Trident submarines continues to strengthen the capability of our sea-based deterrent force.

It is absolutely essential that we continue this effort to modernize our strategic forces--all three legs of the Triad as well as our strategic command, control and communication systems and strategic defense capabilities.

As the President has noted, effective command, control and communication systems are a vital element of our strategic deterrent posture. Put simply, these systems enable our strategic forces to do the job. To that end, we are pursuing programs to ensure that the capability of our command, control and communications network is commensurate with that of the modernized forces we will soon deploy.

We are also now pursuing long needed programs to bolster our capability to detect and defend against attack. Modernization of tactical warning systems and air defense forces is certainly vital, especially in light of Soviet efforts to deploy an expanded, fully modernized long-range bomber force complemented by air- and sea-launched cruise missiles.

Additionally, I applaud the administration's commitment to pursue research on new defensive technologies through the Strategic Defense Initiative. Over the long term, this ongoing research could yield new opportunities to enhance deterrence.

Turning to our strategic retaliatory forces, the sea-based leg of the Triad will be even further improved through continued deployment of the Trident submarine. Additionally, development continues on the new D-5 missile. When deployed, the D-5 will improve the counterforce capabilities of the SLBM fleet and enhance the planning flexibility of future Directors of Strategic Target Planning.

Our efforts to modernize the bomber leg of the triad are progressing quite well. We are currently planning to modify the B-52H's for ALCM carriage and our two-bomber program to develop and deploy the B-1B and ATB is well on track. Together, the B-1B and ATB will present a formidable challenge to Soviet air defenses well into the 21st Century. Furthermore, an advanced, state-of-the-art bomber offers the best potential for dealing with the growing threat posed by Soviet relocatable weapon systems.

To ensure the effectiveness of our current ICBM force, we are pursuing a number of initiatives that will keep Minuteman reliable, responsive and supportable. In accordance with the Scowcroft Commission recommendation, a sequential ICBM modernization program is also underway. The program is centered on the deployment of 100 MX missiles beginning in 1986 as well as development of a small ICBM to be deployed in the next decade.

Concerning the first phase of our ICBM Modernization Program, I join the positions of the President, the Secretary of Defense and the Joint Chiefs of Staff in urging your support for the immediate and continued deployment of the MX. Clearly, MX is an urgent military requirement that is absolutely essential to reduce the current disparity between U.S. and Soviet strategic forces. It will counter the Soviet's superiority in prompt counter-military capability and keep their most valued strategic systems out of the sanctuary they are striving to develop. Furthermore,

MX will undergird our efforts to achieve equitable and verifiable arms control agreements. I will expand on these points in a moment.

Research continues on a small ICBM with emphasis on missile design and basing configurations. Together with MX, the small ICBM will ensure a balanced ICBM leg into the next century.

In sum, our Strategic Modernization Program is generally well on track. We have made much progress since program initiation four years ago and are now on the verge of achieving significant goals established in our overall objective to modernize the key components of our strategic deterrent force. To ensure these goals are reached, it is vital that we sustain the momentum we have worked so hard to achieve.

Nowhere is this more true than in the case of MX deployment. It is extremely important that the Congress release the FY 85 MX funds, approve the FY 1986 funding request, and allow us to complete this critically needed program.

Today, we face a highly destabilizing situation. The Soviets can significantly threaten our ICBM force while we have only a limited capability to place their ICBM'S and other key hardened assets at risk. This Soviet advantage, more than any other factor in the current strategic situation, undermines stability and threatens peace. If not redressed, it may lead the Soviets to believe their political objectives can be successfully attained through the use of coercion or force.

MX represents the best--the only near-term solution to redress the present imbalance in prompt, time-urgent capability against hardened targets. As I stated in a previous appearance before the Congress, "A fundamental precept--and paradox--of nuclear deterrence is that in order to avoid a nuclear war, we must possess weapon systems with the requisite yield and accuracy to promptly threaten what the Soviets hold most dear--their own hardened strategic assets and command facilities." The current disparity in military capabilities will not be redressed, nor will stability be returned to the strategic equation, until we possess the prompt retaliatory capabilities inherent in a system like the MX.

Let my emphasis on the need for a prompt, hard-target capability not be misunderstood. Deterrence--not fighting a war--is the overriding reason for MX deployment. The military capability of MX represents the safest and most effective means available today to achieve our desired goals of stability and lasting peace.

Deployment of 100 MX missiles with 10 warheads each raises doubts in the minds of Soviet war planners as to the success of their initiating an attack. However, it does not represent a destabilizing preemptive potential because the proposed deployment cannot place the majority of high value Soviet targets at risk. Still, MX will convincingly threaten enough of these targets to deter.

For over a decade, we searched for a perfectly survivable ICBM basing mode. While survivability is certainly a vital concern, the essence of deterrence is capability, not vulnerability. The whole question of a "window of vulnerability" that was raised some years ago did not relate specifically to the vulnerability of missile silos. Instead, it had to do with the Soviet strategic nuclear forces overtaking and surpassing U.S. capability. Nevertheless, since 1976 much of the debate on MX deployment has consistently focused on the survivable basing

issue. The situation, however, has changed since then. Individual missile survivability is better than we projected and can be further enhanced:

- Improved and survivable warning systems that incorporate dual phenomenology now provide a more timely and assured attack definition.
- Improvements to our command, control, and communications network provide a higher level of confidence to communicate with alert crews in a stressed environment.
- Due to a better understanding of the inherent geological characteristics at F.E. Warren AFB, we have discovered that existing silos are harder than originally thought.
- Furthermore, research over the last year provides highly encouraging indications that we can build silos with hardness levels much greater than current designs.

We must also recognize that the collective strengths of an effective, fully modernized Triad reduce the requirement that any one leg taken in isolation must be impervious to attack. One example of how our strategic systems work in concert to promote one another's survivability is the timing problem involved in a simultaneous Soviet attack against our SLBM's and bomber forces. A simultaneous Soviet launch of SLBM's and ICBM's would provide approximately 15 minutes for a retaliatory launch of U.S. ICBM's between the time of confirmed SLBM detonation on U.S. bomber bases and arrival of Soviet ICBM's. An attempt to achieve simultaneous impact would require early launch of Soviet ICBM's, thereby providing tactical warning for U.S. bomber escape. The timing problem posed by our Triad serves a very fundamental purpose--our SLBM's, together with a large complement of bombers and ICBM's, will be able to hold at risk the full range of Soviet strategic assets.

The MX should not be seen as a revolutionary new weapon system. Rather, it should be viewed for what it is--a logical, modern ICBM complement for the aging Minuteman force that builds on over 20 years of experience. MX presents all of the valuable characteristics inherent in Minuteman--low operating costs, high alert rate, redundant command and control and rapid retargeting capability.

It is important to note that the MX program will continue within schedule and budgeted cost. We are well into the testing phase and I am happy to note that it is the most successful ICBM program to date. After seven test flights, the missile continues to perform exceptionally well, achieving accuracies which are better than our design requirements.

In my opinion, nothing could be more detrimental to our efforts to redress the current strategic imbalance than canceling the MX and concentrating our efforts on developing and deploying a new small missile. While research on a small ICBM must certainly continue, the nation cannot afford to wait years for promising technologies to be realized. Technology--no matter how promising--does not deter. Only a visible, deployed capability deters. Furthermore, without MX the Soviets would be in a better position to concentrate their efforts on defeating the small ICBM--both during its deployment phase and after it is deployed.

For these reasons, it is extremely important to continue with a sequential, time-phased ICBM modernization program that takes advantage of current and future weapon system capabilities. The counterforce capability of the MX is needed now to redress the

strategic imbalance and increase deterrence in the near term. The small ICBM will further enhance deterrence and promote stability in the far term through its single warhead design and ability to be deployed in more survivable configurations. This integral approach to ICBM modernization is vital to ensure a continuum of deterrence and stability well into the foreseeable future.

There is one final point that should be addressed concerning the need for the MX--as well as the requirement to modernize our strategic forces in general. That is the influence modernization will have on arms control negotiations.

MX deployment is a key factor in achieving success in upcoming and future arms negotiations. It will demonstrate national resolve and convince the Soviets we are taking steps now to protect our vital national interests. In short, MX deployment represents the primary near-term incentive for the Soviets to negotiate.

In our commitment to far-reaching nuclear arms reductions that are equitable and verifiable, overall strategic modernization will clearly provide increased leverage at the negotiating table. Through past experience, we have learned that entering arms talks from a position of strength is a fundamental prerequisite for serious, meaningful negotiations with the Soviets. We learned this lesson in the early 70's when renewed U.S. interest in strategic defense resulted in the ABM treaty. More recently, with continued NATO deployment of intermediate-range nuclear forces, the Soviets are now coming back to the negotiating table.

Today, there are many challenges before us. We are faced with making some very difficult choices to balance limited national resources against many competing and important priorities. In my mind, the greatest challenge we face is to prevent war and preserve national security by maintaining the credibility of our deterrent posture.

To meet this challenge, it is vital that we continue to modernize our strategic forces. A strong deterrent is essential to maintain peace. With the continued support of Congress and the American people, I am confident we will strengthen our deterrent posture and promote a safer, more stable world.

I thank you for this opportunity to share my views and will be happy to answer any questions you may have.

MIDGETMAN MISSILE

Senator RUDMAN. Thank you very much, General Davis, for your statement.

You do, indeed, have a very sobering responsibility, one that I am sure weighs heavily. That is why we are particularly pleased to have you appear before this committee this morning to give us the benefit of your views.

I have a number of questions for you. Some of those I will submit to you to answer for the record in the interest of time.

There are several areas that I would like to ask about. So, why don't we proceed to those. I will make them as concise as I can so that we can get through a number of them.

One of the arguments that we hear a great deal around here is that the Midgetman, or the small ICBM, is a better idea than the MX and that we will be advised to move ahead on that rapidly and get it operational, and essentially not go forward with the MX.

Can you respond to that argument?

General DAVIS. Yes, sir; I will be happy to.

As the committee may or may not know, the small ICBM is an absolute future objective of the Department of Defense and certainly the U.S. Air Force, and, as the operator of that system, the operational commander, it is indeed a high priority future requirement.

In terms of practicality, the small ICBM is very dependent on our work on the MX, the development of MX. Those two programs are tied tightly together. It is a success-oriented program. That is, the 1992 projected initial operational capability is dependent a lot on what we get out of the development of MX.

And before turning to some of the specifics from General Fornell, it would be, in my view, premature to abandon it, based on the thought that we could accelerate significantly the initial operational capability of the small ICBM. We need both.

The need now is for MX. The disparate nature of the strategic balance requires these new reentry vehicles now; very accurate reentry vehicles, to redress the balance today, not in 1992.

It is true that a small ICBM with a single warhead provides in the future a mobility that would provide a more survivable system. It makes sense from a stability point of view and there is, indeed, a military requirement for it. But today's requirement is for MX.

IOC BETWEEN MX AND MIDGETMAN

Senator RUDMAN. We are looking at a difference of between 5 years at the best and maybe 7 years at the worst, if you will, in IOC between MX and the small ICBM; is that correct?

General DAVIS. That is correct. Six years is probably the outside. In the meantime, we have been debating this MX for the last 12 years. The need is now, not 6 years from now.

CRUISE MISSILE

Senator RUDMAN. Let us move to another of the proposals that you hear a great deal about, both in the media and from various experts: That the cruise missile is a better idea and we ought to put our money on that and not go ahead with the ICBM's.

Can you respond to that?

General DAVIS. Yes, sir. The cruise missile is indeed an excellent addition to the strategic triad. It certainly is going to help us extend the life of the B-52. It presents another system in our nuclear arsenal, the very essence of nuclear deterrence and the whole heart and soul of the Scowcroft Commission report. I keep referring to it because it is well done and articulated so very well. The triad approach.

It assists that triad approach. As we regard the bomber leg, it is the only leg that has the best computer in the world, the human mind. It has a person aboard, and they are, in the lexicon, a so-called slow-moving system, so that they are, by definition in some arenas, a more stable system.

Our need today and our shortfall today is prompt; by prompt I am talking about flight times of 30 minutes or less, a prompt capability against the centerpiece of the Soviet nuclear force which is their fourth and soon to be deployed fifth generation ICBM system. The heart of that system is the SS-17's, 18's and 19's.

The cruise missile is good, but it fits a completely different role in this triad approach.

PROGRAM OBLIGATION STATUS

Senator RUDMAN. Let us move on to the program's financial status which was the subject of some discussion yesterday. I want to get that cleared up. Possibly you might want General Fornell to respond to some of this.

Yesterday there was some indication that by the end of this month 99 percent of the \$852 million in production funds will be obligated.

I want to insert in the record at this point the March 4 MX Program obligation data which was provided to the subcommittee by the Department.

[The Peacekeeper Program obligation status follows:]

PEACEKEEPER PROGRAM OBLIGATION STATUS

Funds	Author- ized	Obligated	Percent obligated
OBLIGATIONS AS OF DECEMBER 31, 1984 (ACTUALS):			
Fiscal year:			
1983 R&D.....	2,396.7	2,390.3	99.7
1984 R&D.....	1,962.6	1,928.4	98.3
1985 R&D.....	1,699.7	225.5	13.3
1984 procurement.....	2,075.7	1,610.5	77.6
1985 procurement.....	852.0	115.9	13.6
Total.....	8,986.7	6,270.6	69.8
Percent total program.....	42.9	29.9	
OBLIGATIONS AS OF MARCH 31, 1985 (FORECAST):			
Fiscal year:			
1983 R&D.....	2,396.7	2,394.2	99.9
1984 R&D.....	1,962.6	1,947.0	99.2
1985 R&D.....	1,699.7	1,040.0	61.2
1984 procurement.....	2,075.7	1,923.4	92.7
1985 procurement.....	852.0	845.0	99.2

PEACEKEEPER PROGRAM OBLIGATION STATUS—Continued

Funds	Author- ized	Obligated	Percent obligated
Total.....	8,986.7	8,149.6	90.7
Percent total program	42.9	38.9	
OBLIGATIONS AS OF JUNE 30, 1985 (FORECAST):			
Fiscal year:			
1983 R&D.....	2,396.7	2,389.4	99.7
1984 R&D.....	1,962.6	1,954.0	99.6
1985 R&D.....	1,699.7	1,310.0	77.1
1984 procurement.....	2,075.7	1,934.4	93.2
1985 procurement.....	¹ 2,352.0	2,021.5	86.0
Total.....	10,486.7	9,609.3	91.6
Percent total program	50.0	45.8	
OBLIGATIONS AS OF SEPTEMBER 30, 1985 (FORECAST):			
Fiscal year:			
1983 R&D.....	2,396.7	2,389.4	99.7
1984 R&D.....	1,962.6	1,956.8	99.7
1985 R&D.....	1,699.7	1,664.0	97.9
1984 procurement.....	2,075.7	1,936.4	93.3
1985 procurement.....	¹ 2,352.0	2,023.5	86.0
Total.....	10,486.7	9,970.1	95.1
Percent total program	50.0	47.6	

¹ Assumes \$1.5B released April 1985.

As of March 4, 1985—Does not include Milcon and initial spares.

AREAS ASSIGNED FOR PRODUCTION MONEY

Senator RUDMAN. Is it true that all of that production money will be going to support the fielding of the 21 operational missiles that were funded in 1984?

General DAVIS. I will ask General Fornell to respond to that.

General FORNELL. Mr. Chairman, your statement is correct. According to the latest figures which I have and we furnished to the committee yesterday, 99 percent of the authorized fiscal year 1985 money will be obligated at the end of March.

That is devoted to the basing for the 21 missiles approved in fiscal year 1985, primarily devoted to those basing systems associated with that deployment and other support costs.

Senator RUDMAN. I think you meant 1984. You said 1985.

General FORNELL. To the fiscal year 1984 authorized and approved production missile and to support the fielding of a supporting system, those things required as far as technical data, training and other support costs.

Two major lines, one support and one other system support which we generally call the basing money and the support money field a completely supported system when we deploy.

Senator RUDMAN. Is any of the \$1.5 billion in question here today also needed to field those 1984 missiles?

General FORNELL. The \$1.5 billion fence money as we worked with the committee members and their staff during the compromise period was to be devoted to only the 21 flyaway missiles.

There is some long-lead production, other production money in support of those missiles, specifically in the transport and handling circumstances which says that we will be able to carry those missiles from one place to another, but the major percentage of that \$1.5 billion, and that is the way we broke it out, was for weapon system missile flyaway cost.

I might add, sir, that we have not obligated in any way, or touched any of that money for purposes other than as in the congressional bill and compromise.

COMMITMENT OF R&D MONEY

Senator RUDMAN. I note 61 percent of those 1985 R&D dollars will be obligated by the end of March.

Could any of those unobligated funds be used for maintenance of a work production base or be diverted to other program continuation activity?

General FORNELL. No, sir. The R&D money is committed in our work effort for the research and development program, 1985 and 1986 in particular, that begins a very dramatic downturn in maintenance devoted to supporting the remaining flight test activity. Originally, we scheduled 20 flight test missiles to launch during our developmental test program.

Senator RUDMAN. Let me then go to addressing some of the issues that were brought up yesterday, before yielding to my friends Senator Proxmire and Senator Sasser.

GAO REPORT

There has been some discussion and we will have testimony today from a GAO witness pertaining to a preliminary GAO report. It is my understanding that you have not had an opportunity to respond yet to that report.

Is that correct?

General DAVIS. Yes, sir, that is correct. The Air Force, at least the operational command, has not had an opportunity. As we understand it, it is still in preliminary draft stage, we have not had an opportunity to respond to it.

General Fornell would know for Headquarters, USAF.

General FORNELL. Mr. Chairman, we were just yesterday presented with a preliminary briefing by the GAO at the Pentagon regarding the draft report. Of course, much of our initial reaction was gained through a news release article that was in the New York Times.

Our initial reaction to that assessment was somewhat dramatic. The report, and I have had the pleasure of reading the preliminary testimony or the prepared text of the witness you will call later, I think you will find the report actually is quite complimentary, if you will, as far as Air Force performance on the missile.

Certainly there are key points from an auditor's standpoint with respect to the report which we take great issue with in the interpretation of the assessments that are made there.

At any level of detail, sir, we will be prepared to discuss that.

ACCURACY REQUIREMENTS OF MISSILE

Senator RUDMAN. General, I have seen the classified documents on the tests thus far.

Is my characterization correct in terms of the facts on accuracy, which really is the driving force behind any missile test?

In fact, have the accuracy requirements been fulfilled or exceeded?

General DAVIS. They have been exceeded.

General FORNELL. By a factor of two perhaps, sir. The missile's early performance has been exceptional. The real measure of military effectiveness, as you indicate, in the missile business is the achievement of accuracy.

Of course, accuracy is one of the early things we are most concerned about. With the completion of phase one of the flight test program, which was the first five flight tests, we had a very good early indication of marvelous performance of the missile, early assessment of reliability, and, as you say, most importantly, accuracy.

Those missiles have been tested regularly. We will continue testing those regularly on a well-conceived, prudently planned test program that will take us through four distinct phases.

As we move through the flight test program, the tests themselves become more of an operational nature as the individual SAC crew members begin more and more active participation in the sequence leading to almost a pure operational launch near the end of the program.

That is concentrating only on flight tests. One thing that is often forgotten is that there are hundreds and hundreds of other supporting tests that go on in the ground test environment, nuclear environment, electronics, temperature. We call it shake, rattle, and roll, that submits these articles to tremendous environment. All those tests have contributed to giving us the high confidence we have in the system, and I am able to declare to you we are ready to get into a deployment.

INACCURATE CONCLUSIONS IN GAO REPORT

Senator RUDMAN. It is my understanding that you take specific exception to some of the conclusions reached in that preliminary report.

Am I correct in that after you state those exceptions and explain them, that it is a possibility, according to previous practice, that some components of that report may in fact be changed?

General FORNELL. That is true. The normal procedure in the submission of a Government Accounting Office report is that they submit a draft to us. We have the opportunity to present our views of their assessment. That is a coordinated effort, and then a final report is published. This is a draft report and there have been a couple of drafts already. There are major points made in there that I believe very strongly leave the wrong impression or allow either the public or the Congress to have the wrong impression about things that we feel we have been very successful with.

CORRECTIVE ACTION TIME QUESTIONED BY REPORT

Senator RUDMAN. The last question is about one of the specifics in that report.

They say in that preliminary report, and I stress preliminary, that only 15 months and five test flights remain before missile assembly begins at the deployment sites. They say that the schedule leaves little time for corrective action if any serious problems occur.

Would either one of you want to respond to that here?

General FORNELL. Mr. Chairman, that test program is based on long-time experience. I happen to be a test person myself. I have been involved in this business for only 27 years as compared to General Davis' 35 years, but we have conducted a very rigorous test program that provides key milestones and decision points to give us the high confidence we have. That includes ground testing, flight testing, all the testing required to give us this confidence level.

I can assure the committee that we have a system that works. We are on the cost/schedule and performance requirements of the missile so far. I do not feel that there is a problem.

If we have significant problems, we may need a little time, but that is built into the schedule as well. We will do those things that give the operator, the operational command, the capability of performing the mission with the missile when it arrives at F.E. Warren.

The time devoted in the test program is adequate to do those things to assure us that we are fielding a fully operable missile system.

USE OF AUDITS

General DAVIS. Mr. Chairman, if I might, the whole area of audit is vital to every commander in the field. Audit is essential, and I use audits, commander's audits, frequently.

What we must remember is that an audit is capable of checking your performance in accordance with your directives. Anytime they try to submit views as to operational judgment or try to make operational judgments for you, that is not a proper audit function.

Senator RUDMAN. Thank you, General.

Senator PROXMIRE.

Senator PROXMIRE. Thank you, Mr. Chairman.

General Fornell, I am impressed. You said you have been working on this for 27 years. You don't look over 35 years old, so you must have started when you were 8 years old and you are a real child prodigy, but you look in great shape. No wonder, because I see you fellows jogging across the bridge all the time.

General FORNELL. That is my answer.

VULNERABILITY OF MISSILE SILOS

Senator PROXMIRE. General Davis, can you explain your remarks you made earlier about our missile silos being less vulnerable than previously thought?

Since the first justification for the MX was the vulnerability of our silos, saying we had to have the MX because our Minuteman silos were vulnerable, doesn't your observation lead to the fact that the need for MX is less critical?

General DAVIS. The initial justification for what has become MX or Peacekeeper was a follow-on to Minuteman III. It was the next generation of better guidance, better propellants. It was the additional follow-on missile.

Now, what has come after that, a problem of survivability and vulnerability, we have been through. Certainly what I talked about was greater hardnesses; I did not talk anything about reduced vulnerability.

I talked about the window of vulnerability and I talked about increased hardnesses. I didn't say a thing about decreasing vulnerability.

DEGREE OF HARDNESS OF MISSILE SILOS

Senator PROXMIRE. What purpose does hardness serve if it does not make the missile less vulnerable? Isn't that the whole purpose of having a hardened site so that it makes it less vulnerable?

General DAVIS. It makes it more survivable in the triad context.

Senator PROXMIRE. Isn't that what invulnerability is or survivability?

To put it the other way, when a missile is vulnerable, doesn't it mean it is less survivable? Isn't that the same thing?

General DAVIS. Yes, sir.

Senator PROXMIRE. I thought you said it was hardened——

General DAVIS. It is harder than we thought it was.

Senator PROXMIRE. Therefore, it is more survivable than you thought it was and less vulnerable than you thought it was?

General DAVIS. It is more survivable than we thought it was.

Senator PROXMIRE. And less vulnerable, fine.

Then my question is: Since you say our Minuteman missiles are less vulnerable and the argument for the MX, one prime argument, was that they were too vulnerable, is there less of an argument now?

General DAVIS. No; our argument was that we need a system more accurate, particularly against the improved hardness of the Soviet system, that fourth generation of systems. It is based on the threat, Senator.

UNITED STATES-SOVIET DETERRENT CAPABILITY

Senator PROXMIRE. We have all kinds of deterrents, don't we?

The Soviets and the United States both have roughly the same number of strategic warheads. Some people say we have more, they have more.

At any rate, it is very close, 9,000 roughly on both sides. You say the Soviet Union can threaten our ICBM force. That is about 20 percent of our deterrent, maybe 25. We can threaten their land-based ICBM deterrent, that is 70 percent of their deterrent.

As you know, we have about 50 percent of our deterrent in submarines compared to 20 percent theirs. The Secretary of the Navy testified yesterday that our submarines are virtually invulnerable

and certainly far less vulnerable than any kind of land-based deterrent.

We have something like 25 percent roughly—you have the exact figure—roughly 25 percent of our deterrent in bombers. They have 4 or 5 percent of theirs. Obviously, bombers are far less vulnerable than land-based deterrent.

It seems to me overall our deterrent is far less vulnerable than their deterrent. I see what you are getting at. You say we need an accurate land-based missile and the land-based MX is more accurate than any other missile we have and, therefore, can focus in on their hard target missiles.

VULNERABILITY OF CITIES TO NUCLEAR ATTACK

Let us not kid ourselves. Where are these hard targets we are going hit? They are right next to cities. You and I know in the event of nuclear war, the cities would be hit one way or another.

General DAVIS. I don't know anything of the kind, Senator.

Senator PROXMIRE. Do you really envisage a situation where we could have nuclear war without taking out cities?

General DAVIS. First of all, if we have a strong deterrent, I don't envision a nuclear war.

Senator PROXMIRE. Of course not. You are paid to be prepared for any kind of emergency and I presume we are developing this deterrent so that there won't be a nuclear war.

In the event there is, we would be equipped to attack their targets. We are not doing this for fun.

General DAVIS. To retaliate.

Senator PROXMIRE. Sure.

General DAVIS. The President must be able to retaliate certainly. Nobody said anything about targeting cities. That is your characterization. I say it is wrong.

Senator PROXMIRE. Where are the targets we would hit, whether they are submarine pens or defense establishments?

They are very near populated centers. No matter how accurate they get, there will be an enormous number of civilian casualties. They know it and we know it.

General DAVIS. Sir, you are about 2½ hours flight time away from a superb briefing that is very highly classified that I would be delighted to give to you and any Senator in the Congress to show you all of that.

SURVIVABILITY OF MINUTEMAN AND MX MISSILES

Senator PROXMIRE. How many of our Minuteman and 100 MX missiles would survive an all-out attack by the Soviet Union?

General DAVIS. Again, that is the product of a dynamic exchange. It depends on assumptions. I would be happy to show you that also in a very highly classified scenario.

Senator PROXMIRE. You can't say that in sanitized form?

General DAVIS. No, sir.

Senator PROXMIRE. Don't you think it will be inevitable we will have an overwhelming pressure to develop more than 100 missiles?

General DAVIS. I do not. I believe it begins to redress the imbalance and that hand in hand with the small ICBM, I think, is the future way of deterrence.

Senator PROXMIRE. You say begins to redress. It doesn't give us land-based——

General DAVIS. Superiority, no, sir.

Senator PROXMIRE. I mean parity. They will still be ahead of us?

General DAVIS. Yes.

Senator PROXMIRE. Why wouldn't there be great pressure for us to achieve parity with land-based missiles?

General DAVIS. We believe we can strike a reasonable balance.

Senator PROXMIRE. A reasonable balance would be about 2 to 1 or 3 to 1 in favor of the Soviet Union on land-based missiles?

General DAVIS. A reasonable balance in terms of deterrent capability.

Sir, the Soviet planner has to be a very conservative person. He has to give credit for all U.S. systems. The whole heart and soul, the whole argument for the triad is that he must worst case it. He must assume the worst. He must assume that the United States can retaliate and impose on him damage which is unacceptable.

EFFECT OF STAR WARS ON MX MISSILE BUILDUP

Senator PROXMIRE. If the Soviet Union in response to, say, star wars begins to increase their offensive missiles, then the 100 MX missiles you are asking for we would probably have to increase, would we not? At least that would be your request?

General DAVIS. Sir, as I understand it and I understand fairly well the space defense initiative, what we are talking about is a research effort and nobody can say with surety what the timetable is. We are talking about MX's next year.

DOLLAR COSTS OF MX PROGRAM

Senator PROXMIRE. Can you please give the subcommittee the current constant dollar and then-year dollar costs of the full MX program from the beginning?

General DAVIS. I will be happy to ask General Fornell to do that.

General FORNELL. Senator Proxmire, under the commitment we have made to the Congress after the Scowcroft Commission report, we settled on a \$16.6 billion total program for deployment of 100 missiles in 1982 dollars.

In then-year dollars, sir, that is \$21.6 billion for the same 100-missile deployment. That includes the research and development, the procurement of the 100 missiles and the military construction costs associated with supporting the 100 MX missiles.

Senator PROXMIRE. \$21.6. I had trouble with the Secretary yesterday. I did not make myself clear. He wanted to give me the constant dollar cost from now on. I want the full dollar cost. You have given it to me, \$21.6.

General FORNELL. That is the total. I believe what the Secretary was trying to tell you is that with the release of the fiscal year 1985 funding, the \$1.5 billion that is up for your review and vote here in March, following the release of that \$1.5 billion, we are

right at a little over 50 percent of the program completed in total program funding.

The indication he was saying was that we have the program behind us, we are just now reaching the fruition of development and the early production phase.

Senator PROXMIRE. Thank you, General.

COMPARISON OF MX/D-5 SURVIVABILITY

In what characteristics is the MX superior to the more survivable D-5 system and would it be technically feasible to put these missiles in the Minuteman silos?

General DAVIS. Characteristics, virtually 100 percent alert rate on a day-to-day basis, instant command, control and communications.

Senator PROXMIRE. They are superior to the D-5? You say 100 percent for the MX, what is it for the D-5?

General DAVIS. It varies on alert and modified alert. I would rather submit that to you for the record in classified form until we can determine whether or not it is classified.

It is well less than 100 percent. Instant communication, 100 percent alert rate, and very rapid flight time to target. We are looking forward to the D-5, but we are still talking about a paper missile. [The information follows:]

TRIDENT II (D-5) MISSILE CHARACTERISTICS

Trident submarines spend [deleted] their lifetime at sea—submerged, undetectable, and 100 percent survivable. Since submarines at sea are survivable, they provide inevitable retaliatory capability. This [deleted] inevitable retaliatory capability is the Navy equivalent to the Air Force's alert rate.

Strategic submarines are capable of receiving emergency action messages as rapidly as does the ICBM force in comparable scenarios.

STATUS OF ABM TREATY

Senator PROXMIRE. General, since you think so highly of the Scowcroft report, which I do too, do you endorse its recommendation against dismantling the ABM Treaty or the taking of any action which would violate or change that treaty?

General DAVIS. I believe the ABM Treaty is a good treaty. I think we take under advisement our treaty commitments any time we consider action.

DEPLOYMENT OF SDI

Senator PROXMIRE. You favor SDI; is that right?

General DAVIS. Yes, sir, it is a research program.

Senator PROXMIRE. If we deploy the SDI—I take it the research is not to spend money for nothing. If we use the \$30 billion to produce and deploy the defensive system against missiles, then that would clearly obviously violate the ABM Treaty, would it not?

Research would not, but deployment would; isn't that right?

General DAVIS. The lawyer's interpretation of the treaty is not my business, Senator.

Senator PROXMIRE. I don't ask you as a lawyer. I am not a lawyer either. I am asking you, as our principal officer in the Air Force, what your judgment is—

General DAVIS. As principal officer in charge of strategic nuclear forces.

Senator PROXMIRE [continuing]. Against dismantling the ABM Treaty?

General DAVIS. It has served us well to this point, Senator. I say we should take all treaties under advisement. They are dynamic. They are not chiseled in concrete forever.

Senator PROXMIRE. Thank you. My time is up.

Senator RUDMAN. Senator Domenici.

Senator DOMENICI. I have nothing.

Senator RUDMAN. Before yielding to Senator Sasser, let me ask a question of General Fornell that I intended to ask before. I think it is important to get to it at this point in the hearing.

UNUSED MX FUNDS STILL IN PIPELINE

There was discussion yesterday about the fact that although most of the MX procurement funding had been obligated, a relatively small amount had been expended. There was a fair amount in the pipeline.

Does this unexpended balance lessen in any way your requirements for the \$1.5 billion in 1985 production funds?

General FORNELL. No, sir, it does not. The obligation there is all dedicated to specific work packages that are required and devoted to that, sir.

Senator RUDMAN. Senator Sasser.

Senator SASSER. Thank you, Mr. Chairman.

General Davis, I want to tell you that the lawyers don't know everything in those treaties either. So, don't feel so badly that you don't as a general officer.

VULNERABILITY OF MX MISSILES IN MINUTEMAN SILOS

General, I supported the research and the development of the MX on the ground that our old Minuteman missile was vulnerable. I supported the original development and deployment of the MX in the racetrack system, on the concept that the Minuteman in the old silos was vulnerable.

At that time, General, there was no discussion, at least up here, about simply building the MX missile based on yield or based on accuracy. We were talking about coming up with a new missile to get away from this window of vulnerability that we had with the old MX.

My question to you, sir, is how vulnerable is the MX, putting it in the old Minuteman silos that the Soviets have targeted, we suppose, for 20 years?

How vulnerable is the MX in the old Minuteman silos and how many of those could we expect to survive a first strike?

General DAVIS. Sir, one of the operational requirements always for MX was its accuracy, its improved accuracy. That was one of the original statements of operational need.

In the initial work done on MX it was not by accident that it fit the Minuteman silos because that was the original statement of operational need. Still, with the MIRV, reentry vehicles and improved accuracies, the best that technology would provide.

After all, Minuteman was a product of 1960's technology, but it met an operational requirement.

Then the questions, and appropriately so, of survivability, mobility, or semimobility versus hardening and verification became parts of the program.

The point I tried to make earlier is that survivability and vulnerability are very important considerations. The whole issue of window of vulnerability began in the mid- to late-1970s and they had to do with the relative capability attendant to the deployment of that fourth generation of Soviet ICBM's and their capability versus our own in a dynamic exchange.

So, survivability and vulnerability are important considerations. In our war games we have tended to have the entire strategic force against MX. That is, it is the world against MX.

The Scowcroft Commission report highlighted once again what people like myself have been trying to highlight, that it is a triad approach. With the systems that you have in the triad and good warning systems, there is no way the Soviets can overwhelm you.

They have to take account of all of the different systems. The prudent planner must take account of those systems because there is no way to get at the MX in isolation in an attack on the whole triad.

CAPABILITY OF TOTAL TRIAD SYSTEM

Senator SASSER. That is the actual point. In other words, if we lost all of our land-based ICBM's in a preemptive strike, the Soviet planner still has to deal with the submarine-launched ballistic missiles; he still has to deal with the B-52-carried cruise missile; he still has to deal with the B-52-carried nuclear bombs and shortly will have to deal with the B-1 carrying the same bomb.

So, if you were a Soviet planner, General Davis, if you wiped out all these ICBM's in the continental United States, you would feel like you really have not done very much because you still have to face the assured destruction coming from the submarine-launched ballistic missile and from the air-launched cruise missiles, don't you?

General DAVIS. The answer to that is, yes, you worry about the other two legs. It is the result of the other two legs and the time phasing that is the subject of a very highly classified briefing that we can't get into in this hearing.

Senator SASSER. I am going to take you up on your invitation.

General DAVIS. Yes, sir, I hereby issue it.

Senator SASSER. I would like very much to get it.

Let me turn to my original question, if I may.

SURVIVABILITY OF MX IN SILOS

In the event of a strike against the 100 MX's placed in the old Minuteman silos, how many of those MX's do you think would survive?

General DAVIS. Once again, it is not an appropriate question. That is not how the scenario would unfold. It would have to attack the triad.

In the discussion again of the world against the MX, it gives you a false answer and it is not an appropriate scenario.

Senator SASSER. What I am driving at, General Davis, if we have this triad of bomber-launched cruise missiles, bomber-launched aerial bombs that are relatively invulnerable; we have these submarine-launched ballistic missiles that are invulnerable, why do we want to move in the direction here of building this new MX force and putting it in these Minuteman silos if we have no assurance of greatly enhanced survivability?

General DAVIS. We have assurances of greatly enhanced military capability. The only assurance we have our bombers surviving is that we have them airborne.

In order for the Soviets to coordinate an attack, warning comes in sufficient time so that your ICBM's are not necessarily vulnerable and the Soviets know that. Your submarines are relatively invulnerable only when they are at sea.

Senator RUDMAN. If the Senator will yield, I believe I have had that briefing as other members of the subcommittee have. I am sure the chairman would not object to my saying to you that we would like to arrange for that briefing, which I think is essential.

It would be pretty difficult to understand your answers without having had that briefing. I think we ought to have it and have it soon. I will have the staff get in touch with you.

The whole question of targeting each leg cannot be understood in open session.

Senator SASSER. Thank you, Mr. Chairman.

General Davis, I am not trying to give you a hard time here. I am trying to get answers to some questions that I have in my mind. We have to make some hard decisions here. We have to prioritize financial resources and fiscal resources that are not infinite, as you know.

Building the MX is not a cheap project. It is a very, very expensive project as you know.

The Congressional Budget Office has put out a publication here which is unclassified, open to any citizen who wants to read it.

It states with regard to the MX, if the United States rode out a Soviet first strike on its ICBM's, the Congressional Budget Office estimates that about 10 percent of the MX missiles would survive such an attack in 1990. Ten percent of 100 is 10 MX's with 10 warheads, that is 100 warheads.

And about 5 percent would survive in 1996 as the accuracy of the Soviet missile systems improves.

Now, would you agree or disagree with that assessment, General Davis, that 10 percent of the MX's would survive by 1990 and only 5 percent by 1996?

General DAVIS. In a ride-out scenario, I would have to know the exact scenario used, Senator. So, I couldn't agree with that, no, sir.

DEPLOYMENT OF MX MISSILE

Senator SASSER. One final question and my time is up and I do look forward to the briefing, but, General Davis, in the President's fiscal year 1986 budget estimate he is requesting here 223 MX missiles as of fiscal year 1990 at a cost of \$21.6 billion as of now.

Of course, our experience with these missile systems or weapon systems is that once you get into them, they go up in price precipitously.

Now, is there a plan to deploy 223 MX missile?

We are told you only want to deploy 100, yet here in the President's budget is a request for 223 MX's.

MISSILE TESTING

General DAVIS. Yes, sir. There are 123 test assets. With ICBM missiles you need an additional number for reliability testing and follow-on operational testing. Since they are stored in silos, you need to take them out from time to time and fire them so that you have a high confidence in their operational capability.

It is a procedure that has been used for years. The number 123 would be the same number whether you bought 100 operational missiles or 200 or 300 operational missiles. Those are the numbers of missiles required over the generally accepted term of life, 15-plus years, that you need on an operational test basis for reliability, for assurance of reliability.

We fire normally seven a year. The Strategic Air Command takes active missiles out of the silos at the current time, takes them to Vandenberg for follow-on operational testing even today. But it is part of the follow-on operational testing.

I defer to General Fornell if he has anything to add on that.

General FORNELL. To put that in proper perspective, sir, the other missile systems that we have developed over time, Minuteman I, Minuteman II, Minuteman III, have also had a similar number of missiles. It is not out of proportion at all with our previous experience.

In addition, the Pershing and the Navy in their Trident program also have a continual program for the life of the program, which in our case is planned for 15 years, to launch regularly in this realm of weapon system reliability.

Those numbers are issued to the Air Force through the Joint Chiefs of Staff in order to maintain a confidence level in our planning ability. That is how that number is maintained over the long term.

We buy those missiles at the front end of the program or the normal buy period, if you will, for production to gain the advantage of quantity discounts, then delivering and storing those until time to launch.

NO PLANS FOR 200-MISSILE DEPLOYMENT

Senator SASSER. General Davis, is it your assertion then that there is no secret plan in the bowels of the Pentagon or in the National Security Council to deploy 200 MX missiles?

General DAVIS. Yes, sir. I don't know of it and I am the operator.

MISSILE FUNDING AND SCHEDULE CHART

Senator RUDMAN. I will insert in the record at this time, in order to clarify the last question and the answer, a chart which has been available to the committee entitled "Peacekeeper Production Profile."

It indicates the number of missiles deployed, 100, and the years, and also 108 flight tests and 15 for aging and surveillance. That should go in the record.

Also to go in the record at this time, because I think that the Senator from Tennessee raised a very good question, is a comparison of test programs of all our missiles, going to Minuteman I, II, and III, Peacekeeper, Trident I, Pershing II, and GLCM.

I think the charts reveal that the precise funding and precise schedule of the MX is identical with all missile systems, which I think probably allays some of the fears that maybe there is a secret plan to employ an additional number.

These will be entered in the record at this time.

[The information follows:]

PEACEKEEPER PRODUCTION PROFILE

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89	TOTALS
DEPLOYMENT	20	21	36	23	0	0	100
FLIGHT TEST	1	0	11	24	47	25	108
AGING AND SURVEILLANCE	0	0	1	1	1	12	15
TOTAL	21	21	48	48	48	37	223

COMPARISON OF TEST PROGRAMS

	MM I	MM II	MM III	PEACEKEEPER	TRIDENT I	PERKSHING II	GLCM
ACQUISITION TOTAL	1090	655	834	243	1049	308	502
DEPLOYMENT TOTAL	800	450	550	100	672	108	464
TEST PROGRAM TOTAL	290	205	284	143	377	200	205*
FLIGHT TEST TOTAL	266	191	267	128	377	160	205*
OPERATIONAL TEST TOTAL	210	171	242	108	334	120	123

TESTING TYPES

R&D	56	20	25	20	43	40	82*
PKE-PHASE I	28	50	46	0	0	0	0
PHASE I	74	50	40	25	40	24	3
PHASE II	108	71	155	83	294	96	120**
OTHER (A&S)	24	14	17	15	0	40	0
LAUNCH RATE (PHASE II)	7/YR	3/YR	7/YR	7/YR	20/YR	12/YR	12/YR

* FOR GLCM, 75 TOMAHAWK LAUNCHES ARE INCLUDED SINCE R&D WAS JOINT PROGRAM

** FOR GLCM, 78 MISSILES ARE PROPOSED TO CONDUCT 120 TESTS SINCE FLIGHT TEST MISSILES ARE REUSABLE

MISSILE FLIGHT TESTING

Senator RUDMAN. Senator Chiles.

Senator CHILES. Thank you, Mr. Chairman.

General Davis, I am delighted to have you here this morning.

My reading of the fiscal year 1984 GAO report and the briefings I received on the 1985 draft indicates to me they have pointed out a key concern, mainly those being that four development tests would take place after deployment, next the lack of time to correct problems that might arise for the key guidance and control components because they would not be fully tested before the deployment and the fact that we would be going into full-scale production after having conducted, I understand, seven tests.

They also, I think, pointed out that you have not included some prior year costs, \$4 billion, I think, that were pre-1985 costs.

Is it true that the four flight tests will take place after development and that those tests would be the first tests on the full operational configuration of the missile?

General DAVIS. Sir, earlier we discussed the draft and preliminary draft report. I have discussed that with the chairman.

Senator CHILES. I am sorry I was not here.

General DAVIS. I do this for the record. I established that I, as the Commander of the Strategic Air Command, have not been privy to the preliminary draft, as I understand it was characterized, and I understand we have a GAO witness here for later testimony, but General Fornell has had some initial reading of that document. And I would like to pass the question to General Fornell.

Senator CHILES. The question should have been passed to General Fornell.

General FORNELL. Senator Chiles, we had a chance to be briefed by a member of the GAO yesterday on the preliminary report. Even though the report itself differs somewhat from the earlier report attributed in the newspaper article, we have considerable concern with primarily the impression that is left by some of the statements we feel accurately portray the status of the program in particular, in the range area, the testing area, the accuracy, and the financial recordkeeping part that the GAO looked at.

We feel that the test program has been well conceived. It is properly based in order to allow time for any corrections that may be necessary. We have not had any major problems with the test program to date which gives us the high confidence we have, in particular, in the early look at functional performance, reliability, and, most importantly, the accuracy of the missile.

There are elements of that program that are continually updated. The areas that the GAO point out are being looked at primarily from a producibility standpoint.

We, as we move from development to production, try to look at ways to produce things in an easier, more cost-effective way, and, therefore, change some materials, some manufacturing processes. I don't believe that constitutes a major critical change in configurations as we move through the test program.

The ground tests are often ignored, as well as the confidence building tests that we do. We do a very rigorous series of ground tests on all components of the missile as we integrate them.

The final proof of the system is the flight tests. As I indicated, we have had seven that were very successful. The program has been laid out to answer the critical questions to give us the assurance that we have to have.

Up to this point, I feel that we have our arms around the test program, the answers to configuration, and doing those things necessary to field a very supportable system in the hands of the operator.

FULL OPERATIONAL CONFIGURATION TESTING OF MISSILE

Senator CHILES. General, you have spent a lot more time in the testing area, in the weapons area, and I am no expert on that at all.

I wonder if you would explain to me why would we not test a full operational configuration of the missile?

In other words, that missile as we are going to have that, as we expect to have it in the silo and have it ready to fire, why would we not be testing that before we actually deploy it?

I remember all the fly-before-you-buy rhetoric we have gone through and I also know some of the problems that we have had, as my distinguished chairman has run into with the Divad.

We have been told before, not by you, but we have been told before not to worry, we have tested this thing, the tests are all right, we are going into production. And then we have found, you know, that we have some real turkeys on our hands.

We are talking about something here that is a pretty expensive turkey if it turns out to be that way.

General FORNELL. With the visibility that you certainly understand we have had under this program and being in full-scale development, formal full-scale development, on this program since 1979, we now are culminating the flight test activity in the proven performance of flight tests.

Missiles are somewhat unique in the environment that they are launched in, and the performance envelope that they have and the range and speed and velocity and heating that the individual systems seek, which we understand quite well.

To say that we won't test and what you are referring to as far as the production configuration, that is, today's 1985 Buick that you get off the line, yesterday's Buick, may have just a little bit of a different door knob or condition on it or a different wire, but indeed all our systems are essentially in the production configuration.

We are doing things for reliability and producibility which, in my estimation, do not warrant major configuration changes that would concern us in the system performance.

EFFECT ON PRODUCTION FROM PROBLEMS IN LAST FOUR TESTS

Senator CHILES. What happens if problems arise in those last four tests? What effect would that have on production?

General FORNELL. The last four tests which constitute a separate phase of the program, phase 4 of the flight test program, which concentrate primarily on almost a pure operational launch team, members of the Air Force independently organized operational test and evaluation team, and the Strategic Air Command include members. Those last four missions are essentially operational tests of the missile and will be launched in a very similar mode to be on alert with SAC crew commanders and are merely a follow-on measure of missile performance.

The first 16 missions are the crux of the DT&E portion, the development, test and evaluation, as it takes on a more operational flavor as we go through.

ALIGNMENT TESTS

Senator CHILES. At what stage in those tests does the missile have to align itself? Have you had that test yet?

General FORNELL. Sir, we have not had the alignment. We have course alignment of the missile. Currently in our test procedures we have a very integrated effort primarily associated with the instrumentation and telemetry data required to be sure that all the systems are working properly in alignment.

We are doing that in a procedure now that involves our contractor's ability to look over our shoulder and see that those systems are aligning properly. We record that data. We transmit it and check our procedures primarily because of range safety requirements and to have the full Pacific missile range up at the time of launch.

Now, as we go through, each test is more involved, more of an operational flavor. That is not unique. We do that in airplane testing, we do it in other missile testing, and other weapon system testing.

That first plane, for example, like the B-1 test program ongoing now, that is not exactly in every way like a production airplane, but it is representative and, in our best judgment, a flight test program provides the critical answers in fielding a supportive weapons system on the date we said we would.

Senator CHILES. Thank you, Mr. Chairman.

SYSTEM ACCURACY DURING TESTS

Senator RUDMAN. I think Senator Chiles got here just about the time you were finishing your testimony. I think it might be good at this point to repeat the answer to a question I asked, because I share his concern about testing of systems. Without going into classification, in the final analysis you are doing a lot of problems, hypothetical and real, but what is the accuracy of the system when tested?

You answered that to me. Without breaching classification, you might give the answer again.

Senator CHILES. I heard the answer.

General FORNELL. Mr. Chairman, I welcome the opportunity to provide you with a classified insert for the record on the results of our first seven flight tests which will indicate the total accuracy of the system on each of the reentry vehicles which have been scored.

Senator RUDMAN. We would would request that classified insert for the record.

[The information follows:]

INTRODUCTION OF SENATOR KASTEN

The accuracy of the Peacekeeper missile during the first seven flights has been excellent. The reentry vehicle impacts for the first seven missions are shown below. The test range accuracy for all missions to date is under (deleted). Although test results are extremely encouraging, the small sample size and operational trajectory differences argue against drawing specific conclusions about operational accuracy.

PEACEKEEPER FLIGHT-TEST RESULT (U)

[Deleted.]

INTRODUCTION OF SENATOR KOSTEN

Senator RUDMAN. I know Ambassador Nitze has arrived. He has a very full schedule this morning.

I am now going to go to Senator Kasten. If no one else has questions for this panel, then we will then go to Ambassador Nitze.

IMPORTANCE OF MX AND MIDGETMAN TO OVERALL SYSTEM

Senator KASTEN. Thank you, Mr. Chairman.

I have a question, but first I would like to make a brief observation.

I think it is interesting that General Davis, and others are here making the case for the MX, and that support for the MX is growing almost day by day by day, particularly at a time when the Senate has taken unprecedented action with regard to the defense budget in the Budget Committee. We are seeing a consensus being reached to reduce overall growth in defense spending while at the same time public opinion and certainly opinion on both sides of the aisle in the Congress is telling in support of the MX because of some of the things that not only you, but also Secretary Shultz and Secretary Weinberger and others are pointing out so clearly and articulately.

I repeat that it is a unique moment in terms of a jelling of public opinion. On the one hand, we have to do more with the limited dollars we have in the budget and defense ought not to be cut out of the overall budget deficit reduction effort.

On the other hand, there is a growing understanding that for geopolitical and other reasons the MX missile ought to go on as scheduled. That we ought to take down the fence and we ought to go forward.

I think the excellent work you are doing has a lot to do with the improved prospects for the MX. Now my question is this: Yesterday Secretary Weinberger was asked if he had to choose between the MX and Midgetman, which would he want.

His reply was both.

The Scowcroft Commission recommended studies begin to develop a small single warhead missile for the early 1990's. In the beginning I sensed that there was a reluctance on the part of some in the Air Force who had such a high investment in the MX to go forward with the small single warhead missile because of the tendency of Congress to always be against the one being built now and

being in favor of the one 10 years down the line, be it Stealth, Midgetman, or MX.

MIDGETMAN DEVELOPMENT

Can you tell me if you are satisfied that we are moving forward as quickly as we should be on the small single warhead missile, on the Midgetman, and can you explain to us what sort of transition you envision during the time we are building 100 MX's?

I frankly, am not completely satisfied that we are going for the Midgetman with the kind of emphasis that we ought to and I, frankly, feel that there is still some reluctance to the program and that the Air Force and people who have been associated with the MX are being dragged, kicking and screaming into the Midgetman in part because of the political pressure that some of us are applying.

General DAVIS. Yes, sir; and I appreciate those comments, Senator Kasten.

I would observe and not irreverently, the difference in Washington and the rest of the country sometimes represents a great gap.

Senator RUDMAN. You could be more direct than that if you would like, General Davis.

General DAVIS. In the world of Washington the IOC [initial operational capability], and final operational capability tend to get all mixed up. That is, in Washington math one gets a final operational capability of MX, which is 1989 and initial operational capability of the small ICBM, which is 1992, and in quick math you come up with, gee, there is only a difference of 3 years and why can't we just step to the small ICBM and forego that very controversial MX missile?

I would hope to assure you that I, as operational commander, in my various calls yesterday encountered the following, that indeed there was a question once again whether or not the Air Force was serious about the small ICBM.

I make my headquarters in Omaha, NE. I am not immune to what is going on in the rest of the world, and I can tell you that I have part of an entire planning staff that is working full time on developing the operational concepts, the basing concepts, the whole product, and that group of people deals with the small ICBM even though it is a future system.

As I stated earlier, the small ICBM is a very success-oriented program. It depends on the successful component development in the MX program and will borrow very liberally from the peace-keeper world.

We in the Air Force are dedicated to producing a small ICBM. We get questions now and again, well, are you overly restricted with the 30,000 pounds weight limit?

The answer to that is we are not sure yet. We don't think so, but we will certainly let you know.

Will you need additional weight for penetration aids?

We don't know yet. We are not at that stage.

I can assure you we are dedicated to doing, from my perspective, the operational command inputs on the small ICBM. I have fre-

quent briefings by the ballistic missile office that is indeed in charge of the small ICBM.

My entire staff and the entire Air Force is dedicated to producing a small ICBM.

Senator KASTEN. Thank you, Mr. Chairman.

Senator RUDMAN. Before releasing the panel and calling on Ambassador Nitze, I wonder whether we have covered all the ground we have to cover. Does anybody have additional questions?

If they do, I will ask them to submit them for the record.

Senator PROXMIRE. I will submit mine for the record.

Senator SASSER. I don't have additional questions, Mr. Chairman. I will be happy to propound some.

Senator RUDMAN. I just didn't want anyone to feel that they were getting cut off.

SUBMITTED QUESTIONS

General Davis and General Fornell, we will keep the record open for any questions that some of the members might want to submit.

We thank you for your testimony. It is always good to have you before the subcommittee.

General DAVIS. Thank you, Mr. Chairman.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

ALTERNATIVE TO MX

QUESTION: General Davis, we have been debating MX for a long time. And now we begin the 1985 round. But unless we are willing to abandon our strategic triad, what realistic alternative is there to the MX?

General Davis: I believe it is essential to maintain a viable strategic TRIAD. Our TRIAD of strategic nuclear forces are at the very heart of our deterrent strategy--the ultimate military backdrop against which the nation conducts its affairs. The TRIAD has served us well over the past 25 years--deterring Soviet aggression and coercion against us and our allies. The President's strategic modernization program, which has Peacekeeper as a central pillar, will ensure the future viability of the TRIAD--if we follow through.

I do not believe there is any realistic alternative to the Peacekeeper. Even if the Small ICBM is accelerated--at increased program risk--it will not be available until early 1992. Additional MINUTEMAN improvements beyond those underway or planned could provide only a limited increase in capability. Such improvements would prove expensive, yet represent only tinkering at the margins with our ICBM capability. While we have debated, the Soviets have deployed over 600 hard-target capable missiles--achieving the ability to significantly threaten our ICBM force. As I said in my statement, Peacekeeper represents the best--the only near term--solution to redress the current disparity in ICBM capability and return stability to the strategic equation.

EFFECTIVE ICBM FORCE

QUESTION: Can we maintain a modern, effective ICBM force without it (MX) in this decade?

General Davis: No. The Peacekeeper is an urgent military requirement now. Following more than a decade of intensive hardening efforts by the Soviets, many of their ICBMs and other key hardened assets now exist in sanctuary, relatively unthreatened by the capability of our MINUTEMAN force. What I need are prompt, accurate weapons that can confidently hold these valuable hardened targets at risk. An improved MINUTEMAN force won't do it, and the Small ICBM will not be available in this decade. Only Peacekeeper represents the response that four successive administrations, the Secretary of Defense, the Joint Chiefs of Staff, and I believe necessary to begin to offset a formidable Soviet ICBM arsenal. We must move ahead with deployment of the Peacekeeper now because it represents a credible deterrent today.

MODERNIZING MINUTEMAN

QUESTION: If Congress halted the MX, we would clearly have to rely on the Minuteman as our ICBM deterrent. The average age of the Minuteman force now is 15 years. What about modernizing Minuteman with a new warhead and guidance system? Is that realistic? Is it cost effective?

ANSWER: Modernizing Minuteman with a new warhead and guidance system was considered by the Scowcroft Commission in

1983. The candidates considered were a lightweight version of the Advanced Inertial Reference Sphere (AIRS) used on Peacekeeper and the Minuteman III MK 12A reentry vehicle upgraded with a Path Length Integrated Fuze. This combination could improve the effectiveness of Minuteman III against Soviet hard targets.

While it would be realistic to modernize the Minuteman force if Peacekeeper were halted by Congress, it would not be cost effective compared to completing the Peacekeeper program. Peacekeeper will take \$11.3 billion to complete in 1989 while a Minuteman modernization program to give approximately the same number of hard-target-kill warheads as Peacekeeper would cost \$15.6 billion and would not be completed until 1994. The Minuteman option would result in fewer total warheads in the ICBM force, slightly less effectiveness, and less flexibility and capability than Peacekeeper.

AVAILABILITY OF PROCUREMENT OR R&D FUNDS FOR NEW PRODUCTION LINE

QUESTION: Are there any funds now available -- either procurement or R&D which would be made available for any new production work?

ANSWER: No, there are no funds available for new production work. All existing Peacekeeper funds are obligated or committed to existing program requirements.

FY 84 and 85 procurements funds (3020) will be 95% obligated by 31 March 85. The remaining unobligated balances are committed to identified production ECPs, change orders and initial spares.

FY 84 RDT&E funds are over 99% obligated. FY 85 RDT&E (3600) funds will be over 60% obligated by the end of March 85 and 93% obligated by the end of FY 85. These funds are required to complete R&D commitments in the FY 84 and 85 program and are not available for other uses.

IMPACT ON STRATEGIC DETERRENT IF M-X PRODUCTION PROGRAM IS DENIED

QUESTION: Aside from the arms control implications, which we will discuss with Ambassador Nitze, what would be the actual impact on our strategic deterrent if Congress voted to deny the M-X production funding for fiscal year 1985? First, what would be the impact on the M-X program itself and the nearly \$13 billion we have already invested in it?

ANSWER: If no additional FY 85 production funding is provided, the M-X production line would effectively shutdown beginning in April 85. Several hundred dedicated suppliers/subcontractors would be discontinued.

The impact on our strategic deterrent posture has several aspects: First is the delay in the President's strategic modernization program essential to addressing the current asymmetry in prompt hard target capability between the U.S. and Soviet forces. Secondly, Peacekeeper represents a new missile in a force of aging U.S. ICBMs. Finally, stopping the program now would result in the scrapping of over 10 years development work, and a \$13 billion total investment only to start another

10 year effort and many more billions of dollars when only \$11 billion (TY \$) would be required to finish the Peacekeeper and provide the U.S. with the near term need for enhanced deterrent capability.

SUSPENSION OF M-X PRODUCTION

QUESTION: Is it really feasible to suspend M-X production even for one year? Could we hold that program together with all its complex network of high technology subcontractors?

ANSWER: In practical terms, any Peacekeeper production line suspension is not realistic without penalties. A production line which does not produce is not easily justifiable. It requires of our major contractors extraordinary and obviously wasteful practices. The lower-tier small suppliers and vendors cannot be held in suspension and will drop off at the beginning of the production line. To re-establish these sources requires requalification and recertification, a timely and costly process affecting hundreds of small businesses. The uncertainty of the program may preclude some businesses from recompeting, thus significantly raising total program costs.

COST TO MAINTAIN A WARM PRODUCTION LINE

QUESTION: What if Congress were to reach another non-decision and elect to stop production of M-X but maintain some kind of production capability? What would it cost simply to maintain a warm production line, in other words?

ANSWER: To maintain a Peacekeeper "warm production line" capability for the remainder of FY 85 until FY 86 funds are authorized (Oct 85) would cost an estimated \$650 M. Of this total, \$500 M is needed to retain vendors and subcontractors in standby status, maintain production tooling, and to build-up tooling and piece parts to support the FY 86 production capability. The remaining \$150 M is basing support for the 21 FY 84 production missiles.

COSTS TO PHASE DOWN AND SUSPEND M-X PRODUCTION ACTIVITIES

QUESTION: If Congress does not release either the \$1.5 billion for 1985 production or some lesser amount to maintain a warm production base, what are the costs to phase down and suspend M-X production activities after completion of the 1985 contract?

ANSWER: It is assumed that the RDT&E program and production and deployment of the 21 missiles procured in FY 84 would continue as planned, although no additional FY 85 procurement funds would be forthcoming.

Given this scenario, there would be no additional FY 85 funding required to suspend Peacekeeper production capability.

LOCATION AND DATE FOR SHUT DOWN AND COST TO RESTRICT PRODUCTION ACTIVITIES

QUESTION: If the M-X resolution fails, when would you have to start shutting down production activities? What are the specific locations and dates? What would it cost to restart production later, say in fiscal year 1986?

ANSWER: If no further FY 85 production funds are forthcoming, production line "shutdown" would begin in May 85 with the loss of numerous component suppliers and other vendors/subcontractors who are awaiting the award of FY 85 production contracts.

Some examples of vendors and subcontractors and their locations that would be lost in May 1985 are:

HARRIS
Palmbay FL
TEXAS INSTRUMENTS
Dallas TX
ISOTRONICS
Bedford MA
AMERICAN BERYLLIUM (LORAL)
Tellevast FL
NORTHROP PPD
Norward MA
MOOG
East Aurora NY
CANNON
Fountain Valley CA
VALPEY FISCHER CORP
Hopkincon MA
HONEYWELL
Clearwater FL

The cost impact to restart production and proceed with deployment would be more than \$1.3B. To restart the production line would take 6 to 12 months to rebuild the production base, recertify key vendors and subcontractors, and begin the flow of the thousands of piece parts and components which make up the various missile subsystems. The production delay also causes significant inefficiencies resulting in schedule delays of up to 18 months along with the cost impacts associated with stretch-out delays.

EFFECTIVE DEPLOYMENT OF THE 21 OPERATIONAL MISSILES

QUESTION: Could the Air Force effectively deploy the 21 operational missiles that have already been funded if no additional production were approved? Would such a small force have any meaningful deterrent effect?

ANSWER: While we might be able to deploy most of the 21 FY 84 missiles, we would have no confidence in their capabilities unless we produced an additional 123 missiles -- 108 for operational testing, and 15 for aging and surveillance. The size of the operational test program is independent of the number of missiles deployed. The reliability and accuracy data is needed to meet the Joint

Chiefs of Staff requirements for strategic force planning. So if we deploy 21 or 100, the size of the test program is the same.

The deterrent value of any deployed assets is of questionable value if we have no confidence in its weapon system characteristics.

OPERATIONAL TEST MISSILES

QUESTION: As things stand now, would you have enough operational test missiles to support the deployment of 21 M-X missiles?

ANSWER: No. A minimum of 123 missiles are needed -- 108 for operational testing, and 15 for aging and surveillance. The size of the operational test program is independent of the number of missiles deployed. The reliability and accuracy data is needed for planning. So if we deploy 21 or 100, the size of the test program is the same.

DISRUPTION OF THE M-X PROGRAM

QUESTION: In summary, then, we aren't really talking about a simple one year suspension in M-X production. Aren't we really talking about a severe disruption that will put the entire M-X program in shambles?

ANSWER: A suspension of FY 85 Peacekeeper production would effectively shutdown the production line. Starting in April 1985 vendors/subcontractors waiting for the FY 85 production contract would be lost to the Peacekeeper production program. When contracts are not renewed, the certification of the many processes and production procedures/tooling is lost. Within a few months over 5000 skilled personnel would be unemployed. The one year suspension would be catastrophic to the production program and associated industrial base. Restarting the production line would be impossible without major schedule slippage and significant costs.

MX OPERATIONAL TESTING

QUESTION: General Davis, testing of missiles, certainly strategic missiles, falls generally into two categories--developmental and operational. The purpose of developmental testing is well understood. As the MX operational commander, explain the role and importance of operational testing which consumes 55 percent--123 missiles--of the production missiles.

General Davis: Operational testing is accomplished to develop or refine estimates of system operational effectiveness and operational suitability; to identify operational deficiencies; and to identify the need for modifications. Operational flight testing is to ICBMs what flying hours are to aircraft. It is the only way to establish a data base on an ICBM system's reliability and accuracy under operational conditions. The results of these tests allow us to accurately estimate the system's capability, throughout its life cycle, to perform its mission. Simply looking at test missile

requirements as a percentage of operational missiles is misleading. The 123 missiles (108 for flight tests and 15 for aging and surveillance testing) would be required whether we deployed 50, 100, or 1000 Peacekeeper missiles. The number is a statistically derived requirement for monitoring ICBM status over a 15 year system life.

OPERATIONAL TESTING FOR OTHER SYSTEMS

QUESTION: Isn't this type of operational testing also used for the Pershing, Trident and Minuteman programs, to name a few?

ANSWER: Yes. The operational testing which we currently conduct for Minuteman missiles is closely related to that which is planned for Peacekeeper. The basic objectives of the Minuteman operational test program are to establish, under representative conditions, operational reliability and accuracy planning factors to be used for operational targeting; to detect changes in accuracy and reliability which may occur over time; to identify areas for weapon system modifications/improvements; and to verify effectiveness of those modifications/improvements. The rate of testing required is dependent upon many factors, but must be high enough to yield statistical confidence that the objectives are being met. As of 8 March 1985, 114 Minuteman II and 107 Minuteman III missiles have been launched under the operational test program.

PURPOSE OF DEVELOPMENTAL TEST FLIGHTS

QUESTION: What is the purpose of the 4 developmental test flights -- the so-called "operational system verification flights" -- that will occur after the initial fielding?

ANSWER: The four development flights scheduled after the Peacekeeper Initial Operational Capability will be used to verify the operational test and evaluation instrumentation system and penetration aids performance. In addition, operational test procedures and equipment will be used by Strategic Air Command personnel to validate readiness to start the Operational Test and Evaluation program.

WEAPON SYSTEM PERFORMANCE CHARACTERISTICS

QUESTION: Is it fair to say that all weapon system performance characteristics will have been demonstrated before deployment to the field?

ANSWER: Yes. All Peacekeeper testing is being conducted as planned to confirm weapon system performance/characteristics prior to deployment at F.E. Warren AFB, WY.

PRODUCTION BEFORE FLIGHT TESTS

QUESTION: Is it unique, or even unusual to move into production before all flight tests are complete on components in a system as complex as M-X? Didn't we have a similar testing-production pattern with the Pershing II?

ANSWER: It is not at all unusual for some concurrency to exist between development flight testing and production. Most weapon systems enter production prior to the completion of their test programs. Development and production programs for strategic systems normally cover 10 or more years. Waiting to complete the flight testing would add significant time and expense to the program. During the Minuteman and Pershing development programs, production started prior to completion of development flight testing.

M-X DEVELOPMENT PROBLEMS

QUESTION: General Davis, do you see any development problems in M-X that would be significant to suspend the current production schedule?

ANSWER: Absolutely not. The successful Peacekeeper ground and flight test program indicates readiness to continue with the production and deployment of the FY 85 missile buy of 21 missiles.

EXTENT OF CONGRESSIONAL RESTRAINTS ON THE M-X PROGRAM

QUESTION: Congress has not approved all the funding requested for M-X over the past several years and at one point we put a prohibition on flight testing -- the Hart Amendment -- pending submission of one of the many reports the administration has been required to give Congress. To what extent have these restraints impeded the M-X development and testing schedule?

ANSWER: Three Congressional actions have impeded the Peacekeeper development and testing schedule. The Hart Amendment delayed the start of the development flight testing from January 1983 to June 1983. Since the December 1986 Initial Operational Capability (IOC) remained Congressionally mandated, some flights will occur after the IOC. FY 1984 procurement was Congressionally reduced from 27 to 21. FY 1985 procurement was Congressionally reduced from 40 to 21 and fenced. The results of these procurement reductions slip the Strategic Air Command's Operational Test and Evaluation program from a start in the Summer of 1987 to the Summer of 1988. Thus, no operational flight testing will be conducted until well into the fourth year of production.

GAO CONCERNS

QUESTION: The GAO has expressed in an informal briefing a concern about M-X testing and deployment schedule. GAO says only 15 months and 5 test flights remain before missile assembly begins at the deployment site. The GAO briefers say this schedule leaves little time for corrective action if serious problems occur. Do you consider this to be a major problem? Is this testing and deployment schedule radically different from those of other missile development programs like Pershing II and Minuteman?

ANSWER The success of the early ground and flight test program gives the Air Force high confidence that the deployment schedule and initial operational capability will be achieved on schedule. The testing and deployment concept being used on the Peacekeeper program follows the successful approach used by Minuteman. In fact, construction for deployment of the Minuteman I missile was initiated shortly after the first successful Minuteman flight test. Pershing II development and production had similar schedules.

EXTENDABLE NOZZLE EXIT CONE FAILURES

QUESTION: There have been two Extendable Nozzle Exit Cone failures on previous R&D flight tests. General Davis, what is the status of the Stage III Extendable Nozzle Exit Cone for the M-X missile?

ANSWER: The Air Force is confident that the ENEC problem will be resolved. A decision is now scheduled for 20 March 85 for any modifications to the ENEC. Any modifications will be demonstrated and validated in sufficient time to incorporate the modifications into the operational ENECs.

TECHNICAL RISK IN THE ENEC

QUESTION: Are any of the problems insurmountable? How would you characterize the technical risk in the ENEC?

ANSWER: The problems with the ENEC are not insurmountable. Several potential modification/improvements are being considered with a 20 March 85 decision on corrective action.

The technical risk of the ENEC would now best be characterized as low.

SPECIFIED PERFORMANCE REQUIREMENTS FOR RANGE

QUESTION: Even with the ENEC problems that have arisen, does the M-X still meet its specified performance requirements for range?

ANSWER: ENEC problems on Stage III could somewhat reduce the specified performance for range. However, from an operational employment standpoint, this range reduction is not significant. Even without the ENEC on Stage III, we can utilize various commonly used targeting techniques that would enable us to reach the most distant targets represented in the SAC Single Integrated Operations Plan.

The Air Force is confident that the ENEC problem will be resolved with any required modifications incorporated into the operational ENECs and validated prior to production and deployment.

IMPLICATIONS OF INCORPORATING MANUFACTURING AND PRODUCTION CHANGES

QUESTION: What are the programmatic implications of incorporating manufacturing and producibility changes into the M-X missile during the flight test program?

ANSWER: The incorporation of manufacturing and producibility changes into Peacekeeper components during the development program is the normal and planned approach for improving hardware items. All components will have been flight tested to confirm weapon system performance. The producibility and manufacturing changes are refinements of already proven hardware.

UNRESOLVED MAJOR FLAWS OR PRODUCIBILITY ISSUES

QUESTION: Are there any major flaws or producibility issues left unresolved on either the warhead fuze or the Stage IV tanks?

ANSWER: There are no known technical or producibility issues remaining with the Mk-21 fuse or Peacekeeper Stage IV screen tank. A minor anomaly occurred on Flight Test #6 with one out of six Mk-21 fuses which was corrected and flown successfully on flight test #7. The Stage IV screen tank, which is a derivative of the shuttle screen tank, has been ground tested successfully at altitude and will be flight tested for the first time on flight test #9 this summer.

VARIATIONS IN ACCURACY

QUESTION: Is any nominal change found in MX accuracy on any one flight test indicative of a decline in probability of damage for the missile? Or are the variations in accuracy occasional anomalies?

ANSWER: Accuracy demonstrated on the Peacekeeper flight test program has been outstanding. The accuracy from flight test-to-flight test has been very consistent. The outstanding missile accuracy of under [deleted] on the test range is considerably better than the [deleted] operational goal for the weapon system.

M-X DEPLOYMENT CAP

QUESTION: Even if Congress should cap M-X deployment at 21, isn't it still technically prudent to procure additional missiles to support an operational flight test and evaluation program?

ANSWER: Yes. The size of the operational test program is independent of the number of missiles deployed. The reliability and accuracy data gained from the operational test program is needed to determine the best ways to target Peacekeeper and evaluate its effectiveness in our

Single Integrated Operation Plan. All weapons in our inventory have had operational test programs.

SUPPORT OF THE DEPLOYED M-X MISSILES WITH AN OT&E PROGRAM

QUESTION: If this resolution fails, would we be in the position of being unable to support the 21 deployed M-X missiles with an operational flight test program?

ANSWER: We plan to deploy the 21 FY 85 missiles, not use them for OT&E. We will need 108 missiles for OT&E in addition to the number deployed. The size of the operational test program is independent of the number of missiles deployed to assure the reliability and confidence levels established by the Joint Chiefs of Staff for strategic systems in the Single Integrated Operations Plan are maintained. So if we deploy 21 or 100 the size of the test program is the same.

NEED FOR OPERATIONAL FLIGHT TEST PROGRAM

QUESTION: Under the current M-X program, there will be 20 development flight tests. Without an M-X operational test and evaluation flight test program, you would have to rely solely on the 20 R&D flight tests to demonstrate and verify weapons system accuracy and reliability.

But don't you also need an operational flight test program to provide M-X crews and technicians with "hands on" experience with the missile system?

ANSWER: The 20 R&D flights are for missile development, not for operational testing. An adequate operational test program is needed partially for "hands on" experience, but mostly to obtain missile reliability and accuracy data, and to monitor missile aging.

LEVEL OF CONFIDENCE IN M-X OPERATIONAL RELIABILITY

QUESTION: What level of confidence in M-X operational reliability would we have if Congress procured no more than the 21 M-X missiles, and had no operational testing program?

ANSWER: No meaningful confidence at all. The operational test program is needed to demonstrate weapon system planning factors -- principally reliability and accuracy.

JCS REQUIREMENTS FOR WEAPONS SYSTEM RELIABILITY

QUESTION: What are the Joint Chiefs of Staff requirements for weapons system reliability in an ICBM operational testing program?

ANSWER: The Joint Chiefs of Staff do not specify weapon system reliability requirements to the component services. Rather, through test programs, the component

services report to the Joint Chiefs the reliability demonstrated by a given weapon system.

The Joint Chiefs of Staff do, on the other hand, provide test-rate guidelines to the component services. These guidelines indicate what confidence levels the component services should use in obtaining the weapon system reliability data. (The Joint Chiefs' guidance states that for Phase I testing, the test rate should provide a 90% lower confidence limit that is not more than 10% below demonstrated weapon system reliability. For Phase II testing, the test rate should be capable of detecting with a 75% confidence a reliability drop of 25%).

Modifications/improvements made to a weapon system during its deployed life cycle may require the component services to adjust test rates to provide adequate confidence in reported weapon system performance data.

OPERATIONAL TEST MISSILES TO SUPPORT 21 M-X MISSILES

QUESTION: What is the minimum number of operational test missiles required to support deployment of 21 M-X missiles?

ANSWER: The size of the operational test program is independent of the number of missiles deployed. The reliability and accuracy data from the operational flight test program is needed to provide confidence that reliability and accuracy estimates are valid. So if we deploy 21 or 100, the size of the test program is the same: 108 operational test assets and 15 aging and surveillance assets.

OPERATIONAL TEST MISSILES TO SUPPORT 50 M-X MISSILES

QUESTION: What is the minimum number of operational test missiles required to support deployment of 50 M-X missiles?

ANSWER: The size of the operational test program is independent of the number of missiles deployed. The reliability and accuracy data from the operational flight tests is needed for the Single Integrated Operation plan. So if we deploy 50 or 100, the size of the test program is the same: 108 for operational test and 15 for aging and surveillance.

PROCUREMENT OF MISSILES AS OPERATIONAL TEST ASSETS

QUESTION: The current M-X program includes procurement of 108 missiles as operational test assets. Can that number be reduced without degrading M-X weapons reliability below minimum JCS requirements?

ANSWER: No. In order to ensure that all strategic systems meet acceptable goals, the Chairman of the Joint Chiefs of Staff issues statistical guidance that must be

met through operational testing. The current program of 108 operational test missiles is sized to meet these requirements. Of course, the responsible Operational Commander, in this case the Strategic Air Command, has the task of ensuring that these requirements are met.

TECHNICAL ADVANTAGES OF MIRVed ICBMs LIKE THE M-X

QUESTION: The M-X has a throwweight of more than 8,000 pounds while the proposed Small ICBM has a nominal throwweight of a little over 1,000 pounds. The difference in size between the two missiles is most dramatically evident in the fact that the M-X can carry 10 re-entry vehicles, while the Small ICBM can carry only 1 re-entry vehicle with hard target capability.

Does the larger M-X also provide us more flexibility in other areas? What are some of the advantages of the M-X over the small ICBM in terms of:

-- decoys and penetration aids; higher yield warheads for hardened targets; target coverage/footprint capabilities; and enemy defenses?

ANSWER: MIRVed ICBMs such as Peacekeeper and single warhead ICBMs such as the Small ICBM each have different sets of advantages. MIRVed ICBMs have the flexibility to deploy more penetration aids and provide flexibility for higher yield warheads if they become necessary, and can be efficiently targeted against targets of interest that are several hundred miles apart. In addition, they can be deployed at a lower cost per warhead on alert than single warhead systems because a missile system and launcher can support one or several warheads. Single warhead systems are generally lighter than MIRVed missiles, and are therefore compatible with mobile and fixed deployment concepts that can enhance survivability. Single warhead systems can be highly stabilizing because of their low target value and the associated high price an adversary must pay to attack.

R&D SPENDING ON THE SMALL ICBM DEVELOPMENT PROGRAM

QUESTION: The small ICBM is not yet even in full scale development. A decision to proceed to engineering development will not come until late 1986 or early 1987.

General Davis, how much more R&D spending is left on the small ICBM development program?

ANSWER: The Small ICBM program recently completed a one year concept definition phase, is now entering a two year pre-full scale development phase, and is scheduled to enter full scale development in October 1986. Preliminary estimates at this time indicate that approximately \$13 billion (then year \$) will be required to complete the Small ICBM development program leading to a Dec 1992 IOC.

COMPARISON M-X/SMALL ICBM

QUESTION: You also have to select a small ICBM basing mode. Assuming that you select at least a portion of the small ICBM force for mobile basing, operating costs for that missile could be very high.

In your opinion, does it make good sense from a program and budget perspective to cancel the M-X right now and move directly into a small ICBM development program, with so many issues still to be resolved?

ANSWER: It does not make good sense from a program and budget perspective to cancel the Peacekeeper and attempt to further accelerate the small ICBM development program.

The Peacekeeper is the only system available to us in the near and intermediate term that can begin to redress the imbalance in hard-target capability, reverse this serious decline in our deterrent and thereby strengthen strategic stability.

The small ICBM is an important follow-on to, but cannot be a substitute for, Peacekeeper. Small ICBM development is proceeding at a rapid pace, but will not provide operational capabilities until late 1992. Although significant progress has been made on small ICBM development, many program and budget issues remain to be resolved, while the program and budget plans for Peacekeeper are well-defined.

The Peacekeeper program is on budget, on schedule and has been highly successful technically and programatically. Moreover, a significant investment has been made in the program, with \$10.4 B of the total \$21.6 B cost already authorized and appropriated. We should get on with the Peacekeeper program and complete it while we continue the accelerated development of the Small ICBM.

M-X TERMINATION AND SMALL ICBM ACCELERATION

QUESTION: Is the termination of the M-X, and acceleration of the small ICBM a prudent technical option?

ANSWER: No. Peacekeeper deployment is required to remedy major shortfalls in the capability of presently deployed ICBMs. It will complement the capability of older Minuteman missiles which have insufficient capability against hardened Soviet targets. Peacekeeper's increased accuracy and payload will help correct shortfalls in prompt, hard target capability and demonstrate U.S. resolve to modernize our ICBM force. Such a deployment can only increase our leverage to negotiate viable arms control agreements. Deployment of an effective, survivable small ICBM will take until the early 1990's to accomplish.

U.S. ARMS CONTROL AND DISARMAMENT AGENCY

STATEMENT OF AMBASSADOR PAUL H. NITZE, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

SUPPORT FOR STRATEGIC MODERNIZATION PROGRAM

Senator RUDMAN. Ambassador Nitze, we welcome you before the subcommittee this morning. We appreciate your availability this morning. We know you have a difficult schedule.

I would suggest that if you would like, your entire statement can be inserted in the record. You may proceed as you wish to summarize or to give it in full, if that is your desire, and following that we will have questions.

Ambassador NITZE. I would prefer to deal with the statement in full, if I may.

Senator RUDMAN. You certainly may.

Ambassador NITZE. Mr. Chairman, I welcome the opportunity to appear before you to express my support for the President's strategic modernization program, and for the MX Peacekeeper missile in particular.

I believe deployment of the MX is of major importance, and would like today to address some of the security, foreign policy, and arms control implications of support and funding for that program.

MX AND AN EFFECTIVE DETERRENT

Ten days ago before the Foreign Relations Committee, I outlined the strategic concept that will underlie and guide our efforts in the negotiations on nuclear and space arms.

To summarize briefly, our immediate goal is radical reductions in nuclear arsenals and a reversal of the erosion that has taken place in the ABM Treaty regime. Over the longer term—should new defensive technologies prove feasible—we hope to make a transition from the current strategic relationship, in which deterrence rests almost solely on the threat of devastating nuclear retaliation, to one in which nuclear arms are greatly reduced and nonnuclear defenses play an increasing role.

Our ultimate objective is the elimination of all nuclear weapons.

However, for the foreseeable future, even in the first stages of a possible transition to a more defense-reliant balance, offensive nuclear forces and the threat of nuclear retaliation will remain the key element of deterrence. It is, therefore, essential that we maintain modern, flexible, and credible strategic nuclear forces.

DETERRENCE

Deterrence, as you know, requires that a potential aggressor perceive that the risks and costs of aggression far outweigh any gains he might possibly hope to achieve. We must have confidence that deterrence will function effectively, not only in peace, but especially in periods of major tension and crisis.

Deterrence is relatively simple in peace; it is a crisis situation that poses the harshest and most trying demands.

Effective deterrence necessitates that we deny the Soviets any possibility that they could successfully prosecute a war-winning military strategy, or that they might perceive that they could successfully do so.

We thus should have roughly equivalent nuclear capabilities, and should be able to hold at risk the full range of targets valued by the Soviet leadership, including hardened missile silos, command centers, and other military facilities.

Unfortunately, the combination of the massive Soviet military buildup over the last 15 years and relative U.S. restraint has resulted in inequalities in certain critical measures of the strategic balance.

Our strategic deterrent force is aging and much in need of modernization. This is especially true of the land-based ballistic missile element. Since Minuteman III, our most modern intercontinental ballistic missile, was deployed, the Soviets have added three new types of ICBM's to their arsenal: The SS-17, SS-18 and SS-19.

They have two more ICBM's, the SS-X-24 and SS-X-25, under development for deployment in the near future or almost in the immediate future in the case of the SS-X-25.

The SS-18 and SS-19 pose a major threat to the entire range of U.S. targets. We currently possess no comparable capability.

As the Scowcroft Commission noted in 1983:

A one-sided strategic condition in which the Soviet Union could effectively destroy the whole range of strategic targets in the United States, but we could not effectively destroy a similar range of targets in the Soviet Union, would be extremely unstable over the long run and would clearly not serve the cause of peace.

DEPLOYMENT OF MX NECESSARY

Deployment of MX would help to redress this serious imbalance in capabilities. Indeed, we must proceed with deployment of MX as it is the only way that we can quickly begin to redress this imbalance.

I would note, by the way, that the planned deployment of 100 MX missiles is too small a number to pose an effective first strike threat against the nearly 1,400 Soviet ICBM silos, indeed, against other important Soviet targets.

Critics of MX have focused on the issue of its proposed basing in relation to its survivability. Let me offer some comments in this regard.

SUPER-HARDENING OF MISSILE SILOS

As a result of a research program started about 2 years ago, there are new concepts for super-hardening missile silos to levels that were previously unimaginable. Initial scale model test results

offer promising prospects in the future for greatly enhancing the survivability of MX in silos.

Moreover, as the Scowcroft Commission points out in its report, the survivability of MX must be considered in conjunction with the other elements of our strategic triad. If the Soviets were ever to contemplate a major attack against the United States, the three legs of the triad, submarine-launched ballistic missiles, bombers, and land-based ballistic missiles, would severely complicate their attack planning.

The security rationale offered by the Scowcroft Commission was and remains wholly valid. MX is a necessary element of the modernization of the U.S. strategic triad.

MX AND FOREIGN POLICY

I also regard MX as important in carrying out our basic foreign policy goals, to Western cohesion, and to sustain our leadership position with our allies.

American military power and diplomacy cannot be artificially separated. Our ability to pursue our fundamental foreign policy objectives, to protect ourselves, our allies, our values and interests, and to build a safer, freer and more prosperous world, is intrinsically linked to our military power.

I would note that an examination of the last 15 years reveals that Soviet perceptions of their military capability in comparison to U.S. determination and capabilities has had a bearing on the Soviet ability to challenge our interests around the globe.

A strong U.S. military posture helps to discourage and curb the Soviets from attempting to exploit regional instabilities.

As the leader of the West, we must also be mindful of the impact of our actions on our allies. I believe a decision to continue production of MX will demonstrate to our alliance partners an America that is resolved to maintain the strategic balance as a solid basis for its commitment to peace and international security.

Conversely, if our resolve is seen to be flagging, we only invite allied uncertainty and weaken their confidence in our ability to lead.

Let me note an example from my previous experience as an INF negotiator.

CRUISE MISSILE DEPLOYMENT IN NATO

At the end of 1983, our European allies, in accordance with the 1979 NATO dual-track decision, began to deploy Pershing II and ground-launched cruise missiles on their national territories. In several cases, the decisions to proceed with those deployments were taken in the face of significant domestic opposition.

In every case, the decisions were taken in the face of an unprecedented barrage of Soviet propaganda. But the concerned governments went forward in view of their commitment to NATO, and out of a shared recognition that the alliance had to take the steps necessary to ensure itself of an adequate deterrent.

Their decision to go forward with deployments has paid off. There is no doubt in my mind that NATO's determination to proceed with deployments of the Pershing II and ground-launched

cruise missiles in 1983 and to continue with those deployments, as had originally been agreed in 1979, was a critical factor in the Soviet decision to return to the negotiating table this month. Our allies' decision was not without political risk.

Were we to back away from MX, a program that has been supported for many years by four successive administrations, we would place ourselves in a most awkward position vis-a-vis our European partners. They recognized the necessity of maintaining a modern and effective nuclear deterrent. As the leader and most powerful country of the West, should we do less?

MX AND ARMS CONTROL

New negotiations between the United States and the Soviet Union and space arms begin next week in Geneva. The United States will pursue those negotiations in a serious and constructive manner, will be prepared to address the full range of issues, and will consider and take account of legitimate Soviet concerns.

While we recognize that the negotiations will be complex and most probably will require patience, we are hopeful they can lead to equitable and verifiable agreements that radically cut the number and power of offensive nuclear arsenals.

As Secretary Shultz told Foreign Minister Gromyko, we believe that the strategic relationship can be made more stable and secure, and that stability and security can be maintained at significantly lower levels of armaments, if regulated through effective arms control. We prefer that path.

At the same time, however, fundamental to our chances for success at the negotiating table is U.S. determination, and Soviet recognition of our determination, to maintain an adequate deterrent for ourselves and our allies with or without arms control.

The Soviets will pursue their objectives in the talks with a dual strategy. On the one hand will be tough bargaining at the negotiating table; on the other hand will be a hard-nosed public propaganda campaign aimed at undercutting support for the U.S. approach and trying to force unilateral concessions.

They pursued precisely such a strategy in 1983 with regard to INF; indeed, they gave their public propaganda campaign priority over their efforts at the negotiating table. Fortunately, they failed.

One can already see the Soviets cranking up their campaign with regard to the new negotiations, specifically to block SDI. And it is not illogical for them to do so. If they can, through their public campaign, contribute to bringing about unilateral western concessions, why should they negotiate when they would have to offer up restraints on their own programs?

It is vital to the success of our negotiating effort in Geneva that we convince the Soviets that, as a country and alliance, we stand united. We must bring them to conclude as early as possible that their public campaign will not bear fruit, and that they should get down to serious bargaining at the negotiating table.

Congressional support for the MX will send just such a message to Moscow. It will send a strong signal of national resolve and will greatly strengthen our hand in Geneva.

CONCLUDING REMARKS

Mr. Chairman, I believe the continuation of the MX Program is essential for the maintenance of a strong deterrent posture, for the support of our fundamental foreign policy objectives, and for the chances of success at the Geneva arms control negotiations.

It would be unwise to reverse course and curtail our commitment to the strategic modernization program and MX. To do so would deny the United States and our allies the backup of a needed and important military capability, and would send a signal of weakness and lack of resolve to the Soviet Union, as well as to our friends and allies, at precisely the time when we must show our strength of commitment and unit of purpose.

I, therefore, urge your support for the MX Program. Thank you.

PREPARED STATEMENT

Senator RUDMAN. Ambassador Nitze, thank you very much for a most excellent statement, which very comprehensively covers a number of the questions I am sure the members of the panel want to ask.

We will insert your prepared statement in the record at this point.

[The statement follows:]

PREPARED STATEMENT OF AMBASSADOR PAUL H. NITZE

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Soviet military build-up over the last fifteen years and relative U.S. restraint has resulted in inequalities in certain critical measures of the strategic balance.

Our strategic deterrent force is aging and much in need of modernization. This is especially true of the land-based ballistic missile element. Since Minuteman III—our most modern intercontinental ballistic missile—was deployed, the Soviets have added three new types of ICBMs to their arsenal: the SS-17, SS-18 and SS-19, and they have two more ICBMs—the SS-X-24 and SS-X-25—under development for deployment in the near future. The SS-18 and SS-19 pose a major threat to the entire range of U.S. targets. We currently possess no comparable capability.

As the Scowcroft Commission noted in 1983: "A one-sided strategic condition in which the Soviet Union could effectively destroy the whole range of strategic targets in the United States, but we could not effectively destroy a similar range of targets in the Soviet Union, would be extremely unstable over the long run [and] would clearly not serve the cause of peace."

Deployment of MX would help to redress this serious imbalance in capabilities. Indeed, we must proceed with deployment of MX as it is the only way that we can quickly begin to redress this imbalance. I would note, by the way, that the planned deployment of 100 MX missiles is too small a number to pose an effective first strike threat against the nearly 1,400 Soviet ICBM silos.

Critics of MX have focussed on the issue of its proposed basing in relation to its survivability. Let me offer some comments in this regard.

As a result of a research program started about two years ago, there are new concepts for super-hardening missile silos to levels that were previously unimaginable. Initial scale model test results offer promising prospects in the future for greatly enhancing the survivability of MX in silos.

Moreover, as the Scowcroft Commission pointed out in its report, the survivability of MX must be considered in conjunction with the other elements of our strategic triad. If the Soviets were ever to contemplate a major attack against the United States, the three legs of the triad—submarine-launched ballistic missiles, bombers, and land-based ballistic missiles—would severely complicate their attack planning.

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I would note that an examination of the last fifteen years reveals that Soviet perceptions of their military capability in comparison to U.S. determination and capabilities has had a bearing on the Soviet ability to challenge our interests around the globe. A strong U.S. military posture helps to discourage and curb the Soviets from attempting to exploit regional instabilities.

As the leader of the West, we must also be mindful of the impact of our actions on our Allies. I believe a decision to continue production of MX will demonstrate to our Alliance partners an America that is resolved to maintain the strategic balance as a solid basis for its commitment to peace and international security. Conversely, if our resolve is seen to be flagging, we only invite Allied uncertainty and weaken their confidence in our ability to lead.

Let me note an example from my previous experience as an INF negotiator. At the end of 1983, our European Allies—in accordance with the 1979 NATO dual-track decision—began to deploy Pershing II and ground-launched cruise missiles on their national territories. In several cases, the decisions to proceed with those deployments were taken in the face of significant domestic opposition. In every case, the decisions were taken in the face of an unprecedented barrage of Soviet propaganda. But the concerned governments went forward in view of their commitment to NATO, and out of a shared recognition that the Alliance had to take the steps necessary to ensure itself of an adequate deterrent.

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decision to return to the negotiating table this month. Our Allies' decision was not without political risk.

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At the same time, however, fundamental to our chances for success at the negotiating table is US determination—and Soviet recognition of our determination—to maintain an adequate deterrent for ourselves and our Allies with or without arms control.

The Soviets will pursue their objectives in the talks with a dual strategy. On the one hand will be tough bargaining at the negotiating table; on the other hand will be a hard-nosed public propaganda campaign aimed at undercutting support for the US approach and trying to force unilateral concessions. They pursued precisely such a strategy in 1983 with regard to INF; indeed, they gave their public propaganda campaign priority over their efforts at the negotiating table. Fortunately, they failed.

One can already see the Soviets cranking up their campaign with regard to the new negotiations, specifically to block SDI. And it is not illogical for them to do so. If they can—through their public campaign—contribute to bringing about unilateral Western concessions, why should they negotiate when they would have to offer up restraints on their own programs?

It is vital to the success of our negotiating effort in Geneva that we convince the Soviets that, as a country and Alliance, we stand united. We must bring them to conclude as early as possible that their public campaign will not bear fruit, and that they should get down to serious bargaining at the negotiating table. Congressional support for the MX will send just such a message to Moscow. It will send a strong signal of national resolve and will greatly strengthen our hand in Geneva.

CONCLUSION

Mr. Chairman, I believe the continuation of the MX program is essential for the maintenance of a strong deterrent posture, for the support of our fundamental foreign policy objectives, and for the chances of success at the Geneva arms control negotiations.

It would be unwise to reverse course and curtail our commitment to the strategic modernization program and MX. To do so would deny the US and our Allies the back-up of a needed and important military capability, and would send a signal of weakness and lack of resolve to the Soviet Union—as well as to our friends and Allies—at precisely the time when we must show our strength of commitment and unity of purpose. I therefore urge your support for the MX program.

Thank you.

CHANGES SINCE FAILED START TALKS

Senator RUDMAN. Let me ask you just a few questions. I would like to start out by saying that my understanding is that our negotiating posture at the START talks was based on an ability to deploy 100 MX missiles if we could reach no agreement on limitation.

Has anything changed since the Soviets walked out of the START talks last year?

Ambassador NITZE. Some things have changed. When we went to Geneva in January and Mr. Shultz talked to Mr. Gromyko there, a new form of negotiation was decided on. So, we have three negotiators whereas before we had only two.

In addition to the INF forum and the START forum, we have the space and defense forum and the three are to be viewed in their interrelationship and we have agreed with the Soviets that that is so.

As to the specific subject matter of the START forum in which MX is involved, nothing has changed.

SUCCESS OF NEGOTIATIONS IF MX PRODUCTION SUSPENDED

Senator RUDMAN. In your judgment could we negotiate successfully, on all three of the levels of talks in Geneva that you have described, if we were to suspend MX production at this time?

Ambassador NITZE. I do not see how it could be done. We would try, but I don't believe we could be successful.

SDI PROGRAM

Senator RUDMAN. This question relates to SDI.

If we were in fact to terminate MX at this moment, and we do have four separate votes on this issue, in your view, would it increase the likelihood that the President would be forced into a position to put SDI on the table early on, if in fact MX was no longer part of the plan for this country's deployment?

Ambassador NITZE. Let me say a few words about the SDI program.

First of all, the Russians agree with us that it is impossible by treaty to limit a research program. Much of our research is connected with civilian things. For instance, an x-ray laser is one of the best ways of adding to our medical capability.

So, they agree that it is not possible for many reasons to negotiate a treaty which would limit research. The real issue is the question of what happens if and when we develop systems which are cost effective or look as though they are going to be cost effective and survivable.

We then reach a point when one needs to make a decision about deployment. At that time we are obligated by the ABM Treaty to discuss with the Soviet Union how those systems could be introduced into the forces of the two sides in a way which would contribute to stability and to a reduction of the risk of war.

We propose to do that. We propose to talk to them now about the steps that would be necessary in a transition which would use such new defensive systems and we would certainly negotiate with them seriously and wish to negotiate with them seriously at a time when the research has reached a point when one could be specific about the system to be introduced into the forces of both sides.

Senator RUDMAN. Mr. Ambassador, let me ask you a final question.

FREEZE ON STRATEGIC NUCLEAR WEAPONS DEVELOPMENT

There is another issue that is debated with some emotion and conviction around here and in other places. There is a theory that it would be useful to put a freeze, an immediate freeze on strategic nuclear weapons development and certainly deployment, in order to set an atmosphere going into Geneva. The freeze would certainly not be unilateral, but it would be negotiated.

Of course, it is the position of the administration, as I understand it, from statements that I have heard made by you and others who are charged with this responsibility, that you want to see a mutual, balanced, verifiable reduction in forces. You don't want to go to a freeze at present levels because, if I understand your present position, a freeze at present levels would in effect freeze instability.

INF NEGOTIATIONS

Ambassador NITZE. Let me take the INF negotiations. In the INF situation they have something over 400 SS-20 launchers deployed at the present time, with some 1,200 reentry vehicles. We have deployed only 117 Pershing II's and ground-launched cruise missiles.

So that there is really a 10-to-1 superiority on the Soviet side with respect to these comparable systems. So that to freeze at this time would be to freeze us in a position of gross inferiority.

What we are trying to negotiate in the INF negotiations is reductions from our planned level and their actually deployed level to something which would be equivalent on both sides, which would be a significant reduction from those levels.

I said from our planned level and their deployed level. We think that would be a much sounder outcome and certainly all our allies agree with that.

I think at this time to abandon that position and say that we are content with a 10-to-1 ratio in their favor would seem to me to be grossly unwise.

Senator RUDMAN. Senator Domenici, do you have any questions?

SUPPORT OF SDI PROGRAM

Senator DOMENICI. Mr. Chairman, I have no questions. I want to make two observations, and I thank you for giving me the opportunity.

I have not had a chance for quite a while to speak with our distinguished guest. Since he has a very important job, I want to express two views of mine.

First, I am attending these meetings as a nonmember of the subcommittee to see if anyone could convince me that I should not vote for MX. I am for it and my approach which I will describe in a moment, is very simple.

I have seen nothing yet to make me change my mind. I would also like to comment on the President's strategic defense initiative. I happen to have maybe 35 to 40 percent of America's greatest researchers on SDI in my State. In fact, I have one facility that I think probably has about 50 percent of the SDI effort.

There, as with MX, I think we get so sophisticated with our arguments that we almost abandon reality. The Soviet Union could very well develop their own strategic defense. Nobody is telling us that they can't or won't. They might, and indications are they are working on it.

It appears to me that the Soviet could do this. My answer, therefore, is very simple. Since it could happen, why shouldn't we do it also? The issue is how much should we spend a year, not whether we should do it.

The various alternatives are very sophisticated, and very technical. Someone has to supervise them to make sure that the scientists and engineers of America are realistic with reference to what they spend each year on this effort. But any notion that we ought not to do it because it may yield something later on that we don't want to use is not justifiable. How would the Soviets respond if they develop SDI technology?

What if that happens? What are they going to do at that point in time? Are they going to come over and talk to us?

It appears to me if that happens we are in a pretty bad predicament. I approach the SDI issue from the standpoint of how much is appropriate to spend each year. Maybe we can't afford \$4 or \$5 billion a year, maybe it is \$2 billion.

At a minimum, we ought to develop those capabilities that are scientific and technological and then evaluate the progress and feasibility on a regular basis.

COMPLETION OF MX PROGRAM

With reference to MX, I am aware at this point that the United States and its people spend plenty of money on strategic systems and have for many years sought to have redundancy built into the system. We could probably abandon one of the legs of the triad and have less redundancy, but we have been overly cautious to make sure that the deterrence was the best we could produce. So we have all three.

Since we have decided to maintain all three and we have spent half the money that MX is going to require for a major modernization of existing land-based capability, it appears to me that we ought to proceed with it. It is a modernization issue at this point, in my view.

I don't understand why, based upon any of the theories about what the Soviets might or might not do, we don't proceed.

Again, I ask, what would they do when they reach a new modernization level?

I assume they would proceed with deployment. There are no treaty violations associated with MX. We should get on with it and give our country an additional capability in one of the legs of the redundant triad which we have counted on for so long.

I would also want to say with reference to the strategic modernization effort, I don't think there is anything going on in the budget process that will not ultimately accommodate to what the appropriators will spend.

The President does not seek much of an increase in strategic systems in any event. It is about 8 percent, which is a very small increase.

I just want to share that with the distinguished Ambassador, as somebody who is somewhat involved at least in one aspect of this process, since he is going to have to undertake some very difficult chores for the United States. I thank him for his efforts.

Thank you, Mr. Chairman.

Ambassador NITZE. Senator Domenici, may I comment on the first two points you made?

SOVIET DEFENSE EFFORT

With respect to the Soviet effort on defense, I think most people in the United States do not understand the extent thereof. Our estimates indicate that about 40 percent of their strategic expenditures are with respect to defensive systems and 40 percent with respect to offensive systems and some 20 percent are not allocatable between the two because they are for command and control and for things of that kind.

So, that is a very big effort they have been putting into defense for a long, long time. They have always felt that defense was equally as important as offense.

As far as we are concerned, we put about one-sixth of our defensive expenditures into defense.

I would also point out, however, that a significant part of their defense expenditures are with respect to air defenses while we have very little in the way of strategic air defense. Still there is a major difference between the attention we and they are giving to defense.

Their research on SDI type programs, on high energy lasers, particle beam accelerators, and so forth, has been going on for a longer time than ours and is a substantial effort.

I think our technological base is better than theirs, but as to the work they put into these particular military applications, I think they put more work into it than we do.

So, I thoroughly agree with you that there should be no reason why we should not continue to expand this work.

SDI PROGRAM COSTS

One other comment. As I understand it, the strategic defense program prior to SDI was going to cost some \$19 billion during the next 5 years and the current projection of SDI out for 5 years is \$27 billion. Therefore, what we are talking about is an increase of something around \$2 billion a year which is not that large a percentage of the defense budget.

Now, with respect to the abandonment of one of the three legs, it is not just a question of redundancy. The point is that we face a serious problem if the Soviets could concentrate on a single leg, they can do a great deal on a single leg as they have demonstrated in their counterforce capability against our fixed land-based facilities. Today our sea-based submarine system we believe is fully survivable. But if the only thing they had to concentrate on was making our submarines not survivable, I would be concerned. I, as

a former Secretary of the Navy, would never be confident against the full power of the Soviet aggressiveness addressed against our SLBMA alone, not at all assured we could hold forth for the long term.

That is why I stress the future possibility of increasing the survivability of our land-based components through such things as superhardening. It has not been decided to do that at this time; there is still more R&D work to be done, but it does offer an opportunity for the future.

If and when other legs of the triad become less secure than they are now, then we should go into something like that.

Senator RUDMAN. Senator Proxmire.

ONE-SIDED HEARING RECORD

Senator PROXMIRE. Mr. Chairman, I want to congratulate you and the chairman of the subcommittee for the remarkably competent and expert witnesses you have called before the committee. Of course, Secretary Weinberger, General Davis, now we have Paul Nitze, who all of us greatly admire and respect; probably our most distinguished negotiator.

You have also asked the General Accounting Office to appear and he has a very relevant statement, too.

I must protest the fact that this is a very one-sided set of hearings. I have just been told that this would conclude our hearings. We have had nothing but support for the MX.

We have all kinds of very competent people who are opposed to MX, including the former Director of CIA, Bill Colby; Nowel Gaylor, former Director of the National Security Agency; former Defense Secretary, Robert McNamara; Gerard Smith, another distinguished arms control negotiator; General Maxwell Taylor; Stansfield Turner, both distinguished military experts, and also the former head of the CIA.

None of them is going to testify. We have a record here that is very one-sided. I think if we are to have a decision on the floor of the Senate on this critical issue that involves not only a lot of money, but the security of our country, we ought to have people who have a different viewpoint than the witnesses who have been called to appear.

Senator RUDMAN. Let me say to my friend from Wisconsin that we have only had one request for testimony.

Senator PROXMIRE. Now you have two.

Senator RUDMAN. Would you like to be a witness, Senator Proxmire?

Senator PROXMIRE. I have given you the witnesses.

Senator RUDMAN. We have had one request. I think the chairman is looking at that request at this time. I am sure the chairman certainly would not oppose a more balanced hearing if you wish to call it that.

I would expect that these witnesses were called because we are now considering the administration's request and we have had no great outpouring of others who wish to appear.

When it became apparent that the GAO had something to say, that was quickly scheduled and added to today's list at my request,

the Chair's request. So, certainly we are not trying to present any one-sided argument at all.

Senator PROXMIRE. I am sure you are not and your whole record in the Senate is one of fairness. I think it has worked out that way.

The fact is Mr. Finley is about 90 percent for the MX. Although he is not taking a position one way or the other, he is making a report and that report is quite favorable.

Mr. Nitze, the Congress can't consider the wisdom of going through the MX without considering its future in a super power offensive-defensive nuclear missile race. We come down to that if arms control doesn't work, and we hope and pray it will.

SOVIET REACTION TO SDI PROGRAM

What specific reactions do you expect the Soviet military to take as a result of the \$25 billion to \$30 billion first phase of the U.S. SDI Program?

Ambassador NITZE. Your refer to this as being a race. In part it is a race. The race really has been a one-sided race. As Harold Brown once said, "When we build, they build; when we don't build, they build."

As one looks at what the Soviets are doing today, look at the systems that they now are deploying, that they have developed, they have lots of systems in development right today and I think they intend to deploy them. They certainly intend to deploy the SS-X-24 and SS-X-25. They certainly have other follow-on missiles in the works.

I think they already are going forward with these things unless we can work out an agreement with them which will involve mutual limitations which will really begin to cut down on these systems.

Senator PROXMIRE. You say unless the arms control agreement is worked out, that whether we go forward with the SDI or not, they will proceed to build more offensive missiles?

Ambassador NITZE. I do indeed. All evidence is to that effect.

Senator PROXMIRE. Will those increased missiles with extremely accurate targeting give the USSR the capability to take out all the MX sites in a surprise attack?

Ambassador NITZE. On this you just heard the testimony of General Davis.

Senator PROXMIRE. I want to get your testimony.

Ambassador NITZE. It is really a problem of the triad.

Senator PROXMIRE. I wasn't asking about the triad. I was asking about the 100 MX missiles, whether they could be taken out?

Obviously there would be a different problem with the submarines and bombers.

Ambassador NITZE. I have not been exposed to the classified briefing that General Davis offered to you and, therefore, I wouldn't want to go beyond what he said.

Senator PROXMIRE. Mr. Nitze, you assess certain standards for the SDI Program including a survivable defense system and cost-effective deployment, it is cheap enough to add defensive capability so that the other side has no incentive to add additional offensive capability.

That was a very fine contribution to our understanding of the debate and certainly has reassured many of us in the Congress; certainly it has reassured me.

SURVIVABILITY AND LOST EFFECTIVENESS OF SDI

My question is: As you view the SDI Program today, does it meet these two standards or conditions of survivability or cost effectiveness?

Ambassador NITZE. I am not a scientist, not a physicist, not a technician, so that I cannot myself judge the question as to whether these cost-effective systems are possible. But those that I have confidence in, and I have dealt with scientists and technicians for many, many years, I think I know 90 percent of the leading ones, and as to those I have great confidence in, they are confident that this may be possible.

None of them can say it can be done until they have done it, but I think they really believe it can be done.

Senator PROXMIRE. You say they won't have real confidence until when, when they have finished the \$25 billion or \$30 billion research program?

Ambassador NITZE. I do not mean to suggest that. I mean when they have done enough research in individual systems to be able to make cost-effectiveness analyses.

Senator PROXMIRE. When would you expect that to occur roughly?

Ambassador NITZE. That depends on the individual system. I think some of them in the next 3 or 4 years. Some of them I would doubt it would be possible in less than 10 or more years.

U.S. BARGAINING CHIPS IN TALKS WITH SOVIET UNION

Senator PROXMIRE. The President has said the SDI Program is off limits at the bargaining table with the Russians. The Secretary of Defense has said the MX is off limits, the land-based missiles and bombers being off limits. Cruise missiles may be impossible to verify without on-site inspection, according to Secretary Lehman, and they are not subject to easy control.

What systems are left that are of interest to the Russians that we have to bargain with?

Ambassador NITZE. It depends on what timeframe you are talking about. In the immediate time period when we have no assurance that an SDI will come up with a cost-effective and survivable system, we must continue to rely on the ultimate threat of massive retaliation.

Therefore, it would be improvident, I think, on our part to cut down on and delay systems necessary to provide us that assurance during this time period. Therefore, the only way I can see our being prepared to cut down on our modernization plan is if we were to get a very serious reduction in the Soviet systems to a basis much closer to parity than anything that exists today.

That is exactly what we propose to address. This is what the Start group is trying to do, will try to do, in Geneva to work out a triad with the Soviets which will be an offense against offense

trade in which we will make certain limitations on our offensive systems in return for limitations and reductions on their side.

Senator PROXMIRE. That is a very reassuring answer except when you get to the specifics. If MX is off limits, and land-based missiles and bombers are off limits and cruise missiles are off limits, what are we left with? What can we give up?

Ambassador NITZE. It depends on the framework in which you view these things. If you look out at the long-range future, after all the President deeply believes, and we support him in that, that the future goal should be the total elimination of all nuclear weapons.

In that sense everything is on the table. We want to get even now into discussion of how one can make a transition from this current reliance upon the threat of ultimate nuclear destruction. We believe the confidence we can have in that reliance is being eroded by the very great effort that the Soviets are making in the defensive field and the way in which they are acting under the ABM Treaty, which we believe is not in accordance with the treaty or with our understanding of what the treaty was based on.

We want to get to it at the same time as we want to get the offensive-defensive relationship worked out. We propose to talk to the Soviets about those problems.

PROSPECT FOR REDUCTIONS IN STRATEGIC ARSENALS

Senator PROXMIRE. You have worked for several administrations. You have the longest perspective on arms control negotiations of any American negotiator.

In your opinion, what is the prospect of achieving deep reductions in the strategic arsenals of both sides in the next 2 years?

Ambassador NITZE. I prefer to look at things from the standpoint of what wants to happen. What one does in the policy business in a sense, is aimed to affect what otherwise would happen, particularly if one does the right thing.

The important thing is to develop what one's intent should be in the realm of the possible and fight for those things that would change the odds in favor of what it is you want to get done.

I would prefer to stay away from pretending that I am Jimmy the Greek. I am not very good at the Jimmy the Greek role; I am not very good estimating the odds on what will happen in the future.

I have worked in the business of planning, trying to design programs which in the long run can be made to be effective.

Senator PROXMIRE. My time is up, but I must say that I consider that answer as meaning that the prospects for achieving deep reductions is so dim—I don't want to be unfair—

Ambassador NITZE. Uncertain, not dim.

Senator PROXMIRE [continuing]. Uncertain, that you can't give us a favorable response.

Thank you.

Senator RUDMAN. Senator Sasser.

Senator SASSER. Thank you, Mr. Chairman.

U.S. STATUS IN STRATEGIC NUCLEAR CAPABILITY VERSUS SOVIET UNION

Mr. Ambassador, in your statement you stated and I quote, "Thus we should have roughly equivalent nuclear capabilities with the Soviet Union."

Mr. Ambassador, do you feel that the United States is inferior at the present time to the Soviet Union with regard to strategic nuclear capability?

Ambassador NITZE. If you look at the various parts of the problem, if you look at what their hard target kill capabilities are, which I think is an important aspect of relative nuclear capability, I do not see how one can come to any other conclusion than that they are greatly superior to us in hard target kill capability.

When you look at other measures of capability such as throw weight of the Soviet force, which is really a measure of the general destruction which can be caused, then, of course, their throw weight is some three times that of the United States.

When you look at their defensive capability, they are the only ones that do have a defensive capability. They have fully exploited the provisions of the ABM Treaty which permit them and permit us to have defensive ABM capability. We dismantled ours; they did not. They have perfected and improved theirs.

If you look at what they have ready for deployment in the ABM field and in the air defense field which come close to the boundary of an ABM system, there they have systems underway which do eat into the distinction between air defense systems and ABM systems.

So, whether you look at offense or defense, it is not encouraging. I think our SLBM force is superior to theirs, our bomber force is superior. There are offsets, but not equal offsets, superiority in certain aspects on one side and inferiority on other aspects on the other side.

The project at Geneva is to try to work out trade-offs between these in a way in which we could lay a basis for reductions on both sides to radically lower levels. That means that one should take into account all these various factors when one is working on toward a new boundary which is at a radically lower level.

DEFENSE AGAINST MIRVED INTERCONTINENTAL BALLISTIC MISSILES

Senator SASSER. Mr. Ambassador, do you believe it is possible to have a defense against MIRVed intercontinental ballistic missiles?

Ambassador NITZE. I do indeed. Many of the scientists that I have a high regard for believe this is possible.

Senator SASSER. Do you think the Soviets have such a defense in place at the present time?

Ambassador NITZE. They have a defense, they have both a terminal defense around Moscow as permitted by the ABM Treaty and they have an exoatmospheric defense which is the Galosh missile which operates in the upper atmosphere, above the atmosphere.

So, they have two layers now, but it is restricted in numbers by the ABM Treaty. They are working on this. If you have an operational system, it is easier to put in more units. They have hot production lines.

EFFECTIVENESS OF SOVIET ABM DEFENSE

Senator SASSER. I suppose my question to you would be how effective is that ABM defense that the Soviet Union has?

If 100 warheads or 200 warheads are coming into the Soviet Union, how many would not make it as a result of this ABM defense they have?

Ambassador NITZE. I figure that today it is possible to overwhelm that defense by sending more RV's against it than the number of interceptors that they are limited to by the treaty, which is 100 interceptors.

Some numbers of RV's coming in would just exhaust the defense. So that today that is not a worrisome defense. But the problem remains that this does give them an opportunity for creepout and breakout which is worrisome in the long run and something I think we should be concerned about.

Senator SASSER. I think we can agree that at the present time their antiballistic missile defense would not be effective. It is not something we should concern ourselves about in its present state of development or deployment.

Ambassador NITZE. When you go into computations of how many RV's you need, you need a considerable number of RV's to penetrate the Moscow defense while we have no defense. Therefore, the situation is somewhat uneven in that regard.

There are a lot of factors that have to be taken account of. After all, they have many more hard targets than we have, the proliferation of hardened command and control centers, and so forth. There is a great unevenness between the two. All of these have to be taken into account.

EFFECTIVENESS OF SOVIET MISSILE GUIDANCE SYSTEMS

Senator SASSER. You stated a moment ago that the Soviets have a hard target capability superior to ours. You mentioned the fact they have a throw weight three or four times greater than that of our missiles.

Isn't this a reaction to the fact that their guidance systems over a period of time have not been as accurate as ours and as a result they had to build larger missiles to lift greater throw weight to compensate for inaccurate guidance systems?

Ambassador NITZE. I think that is in part correct, yes. In the early 1970's they built much larger missiles than we did and many more than we did. That is what built up their throw weight to a position greatly in excess of ours while we were relying on our better technology to build smaller missiles and more accurate ones.

Over the years they have worked very hard on accuracy so that their accuracy today isn't as good as the MX, but I think it is as good as the Minuteman III accuracy.

BARGAINING STATUS OF MX MISSILE

Senator SASSER. Yesterday, Mr. Ambassador, Secretary Weinberger testified before this committee and he stated to this committee that the MX is not a bargaining chip in the arms talks with the Soviets.

Now, should we take that to mean that the MX will not be the subject of reductions, arms reductions, in talks with the Soviets, or is everything on the table in these arms talks coming up in Geneva?

Will we be in a position in Geneva to exchange or limit deployment of the MX missiles in return for the Soviets dismantling or reducing some of their heavy missiles?

Ambassador NITZE. It depends on the time frame you are looking at. In the short time frame, in the medium time frame, the MX represents an effort by us partially to equalize what they have. It is nowhere equal to what they have in the way of hard target kill capability.

Under those circumstances, if you are trying to come out to an equal end point, a balanced end point, then there would have to be very, very deep reductions before one would affect a program of 100 MX's. It is not within the realm of the possible. I wouldn't think in the near-term timeframe, that it would.

If one looks out further to the period I refer to as the transition phase and to the ultimate objective of total elimination, obviously everything is on the table.

SURVIVABILITY OF MINUTEMAN-BASED MX MISSILES

Senator SASSER. You referred a number of times to the hard target kill capability of Soviet missiles and their heavy land-based ICBM's.

Mr. Ambassador, do you have an opinion as to whether or not the MX based in Minuteman silos could withstand the hard target kill capability of the Soviet ICBM's?

Ambassador NITZE. That is a question of how many, under what circumstances would survive. Therefore, I would not wish to comment on this beyond what General Davis stated.

Senator SASSER. You cannot tell me either, Mr. Ambassador, how many would survive in the event of an attack. But judging from what you are saying about Soviet power with regard to hard target kill capability, I am persuaded that not many MX's would survive a nuclear strike.

Ambassador NITZE. In any case, they would have contributed to survivability of our bomber force and also to the survivability of our submarine force and, therefore, I think they would greatly contribute to deterrence and deterrence is what we are after.

We want to do it to reduce the risk of war through deterrence and that is what we should be determined to do.

Senator SASSER. That is something I can't quite grasp.

How is a land-based ICBM going to contribute to the survivability of a bomber that is going to scramble as soon as our sensors detect their ICBM's coming off the ground and can be in the air within 5 or 10 minutes?

How is a land-based ICBM going to contribute to the survivability of a submarine-launched ballistic missile in a submarine maybe 200 miles off their coast under water that they can't detect?

Ambassador NITZE. That is why I would recommend the general's briefing because I think he is prepared to go into that in detail.

Senator SASSER. I had better get that briefing, Mr. Chairman.

Senator RUDMAN. We are going to make very sure you get the briefing, Senator Sasser.

Senator SASSER. Thank you.

Senator RUDMAN. Thank you very much, Ambassador.

Senator PROXMIRE. Could I ask one question?

Mr. Ambassador, you have had a great deal of experience.

FAILURE OF UNITED STATES TO CANCEL OFFENSIVE MISSILES IN PRODUCTION

Can you name a single offensive weapon the United States has in production and then bargained away during negotiations with the Russians?

Ambassador NITZE. I can't mention an offensive one. I can't mention a Soviet one that they bargained away. I can mention defensive ones we bargained with.

Senator PROXMIRE. I am talking about offensive weapon systems like the MX. It seems to me on the record once a system is in production, isn't it just about impossible for either side to actually limit the momentum of the system?

Ambassador NITZE. Another way of putting your statement is to point out that our past negotiators, although they work very hard at it, have not been effective in limiting offensive missiles. They have been ineffective in that.

In fact, the deployment on both sides of offensive missiles has gone up despite the interim agreement, despite the SALT II agreement. Clearly those agreements did not effectively reduce the offensive system on either side.

Senator PROXMIRE. On the basis of the historical record, it is clear if we go ahead with the MX, many Senators and Congressmen voting on the grounds of a bargaining chip will be stuck with it?

Ambassador NITZE. That does not follow because the President's determination is that these negotiations should not have in them the errors that were in the interim agreement and in the SALT II agreement and that they should result in real reductions and eliminations.

Senator RUDMAN. Thank you, Mr. Ambassador. We appreciate your being here this morning.

Ambassador NITZE. I thank you, Mr. Chairman.

GENERAL ACCOUNTING OFFICE

STATEMENT OF HARRY R. FINLEY, ASSOCIATE DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, AIR FORCE SUBDIVISION, GENERAL ACCOUNTING OFFICE

ACCOMPANIED BY JAMES F. DINWIDDIE, LOS ANGELES REGIONAL OFFICE, GENERAL ACCOUNTING OFFICE

OBSERVATIONS ON SMALL IBM

Senator RUDMAN. The final witness of the morning is Harry Finley, Associate Director of the National Security and International Affairs Division, Air Force Subdivision, General Accounting Office.

Mr. Finley, we have your entire statement. It will be in the record.

Can you summarize that statement for us this morning?

Mr. FINLEY. Yes; I can give you a 5-minute summary.

Senator RUDMAN. That is excellent.

I will ask my good friend, Senator Domenici, who is accustomed to chairing a hearing, if he will spell me while I meet someone.

Senator DOMENICI [presiding]. You may proceed.

Mr. FINLEY. Mr. Chairman, today I am accompanied by Mr. James Dinwiddie of our Los Angeles regional office. Mr. Dinwiddie is responsible for all our work at the ballistic missile office.

Senator DOMENICI. Those on the way out, could you kindly hurry so that we can have a little order.

Thank you.

You may proceed.

Mr. FINLEY. The results of our work are preliminary and we have not formally presented a draft report to the Department of Defense for its comments. My comments will focus on the results of our work on the Peacekeeper program. However, because of its relationship to the Peacekeeper, several observations on the small ICBM might be of interest to the subcommittee.

COST OF SMALL ICBM

Preliminary information available on the small ICBM suggests that the program will be costly, perhaps \$50 billion life cycle cost for a 500-missile force on mobile launchers; that it will require a large personnel force, perhaps 20,000 to operate, maintain and secure the system; and, that it will require access to from 4,000 to 28,000 square miles of land for basing. These costs and the small missile's operational effectiveness assume deployment of 100 Peacekeeper missiles with 1,000 warheads.

PEACEKEEPER MISSILE DEPLOYMENT

The Peacekeeper weapon system continues to progress toward deployment of the first 10 missiles by December 1986. The design of the Peacekeeper missile is essentially complete, and the results of ground testing provide confidence in the integrity of the missile design with added assurance to be provided through remaining tests.

Flight worthiness of the missile has been demonstrated by the results of the first seven Peacekeeper test flights, and most problems experienced during those flights have been corrected. The flight test program is 35 percent complete with 13 more flights remaining in the development program to conclusively demonstrate the operational effectiveness and suitability of the Peacekeeper weapons system.

As the remaining 13 test flights are performed, the configuration of the missile will transition from a developmental to an operational configuration. Examples of some of the changes to be made in subsequent test flights appear in my full statement.

To meet the deployment date, the flight test program is being done concurrently with production and deployment activities. The Peacekeeper flight test program to date has shown good performance and the Air Force's plan to phase in operational components during development flight testing is not unusual. While problems during flight testing are not unexpected, we believe that the development and testing schedule must maintain the relative success experienced to date if the Air Force is to meet the congressionally mandated initial operational capability date of December 1986.

PRODUCTION STATUS

The Air Force plans to procure 223 Peacekeeper missiles—100 for deployment, 108 for operational test and evaluation, and 15 to monitor the effects of aging.

Production of components for the first 21 operational missiles began in fiscal year 1984. The program office awarded production contracts for missile components during the period January to November 1984, and it is expected that components will be delivered on schedule.

The Congress appropriated \$2,102 million for the fiscal year 1984 Peacekeeper procurement program. As of January 31, 1985, \$1,618 million, or 77 percent had been obligated.

In fiscal year 1985, the Air Force requested funds to buy 40 operational missiles. Congress authorized \$2.5 billion for 21 operational missiles and spare parts. Of that total, \$1 billion was available to be obligated. The Air Force plans to use \$852 million for procurement of missile long-lead materials and basing and support for the 21 missiles and \$148 million for spare parts. We were advised by the Air Force yesterday that as of the end of February 1985, \$312.7 million was obligated for basing and \$72.8 million for spare parts. At the end of March 1985, the Air Force expects to have \$845 million obligated for basing and \$85.6 for spare parts.

PEACEKEEPER RANGE

To be an effective deterrent, the Peacekeeper missile must be able to successfully attack the full spectrum of Soviet targets, including super-hardened targets. This requires the missile to deliver warheads to intended targets and to inflict the desired level of damage.

The Peacekeeper missile, with 10 MK-21 reentry vehicles, deployed near Warren Air Force Base in Wyoming, has the range needed to reach the most distant planned targets. As discussed in our 1984 report, reductions in missile range capability have occurred. We subsequently found that missile range capability is continuing to decline, but only slightly, with 1 percent excess range capability remaining.

Program officials remain confident that the Peacekeeper missile with 10 MK-21 reentry vehicles will have the desired range. They state that the design of the missile is essentially complete and proven through flight testing with added assurance to be provided by scheduled test flights. However, retention of the current range capability is dependent upon successful repair of the stage III extendable nozzle exit cone which failed on the third and seventh test flight.

MISSILE ACCURACY

The accuracy achieved by the first six Peacekeeper test missiles have been significantly better than the design requirement directed by the Secretary of Defense.

Conclusive demonstration that Peacekeeper will continue to have the higher accuracy awaits future test flights, some at extended ranges, with operationally configured reentry and guidance and control systems.

PROGRAM COSTS

The estimated cost for the Peacekeeper program in December 1984 was \$16.5 billion in 1982 dollars, or \$21.6 billion in then-year dollars. The current estimate has not changed significantly since the first Peacekeeper program selected acquisition report was submitted, for the period ending June 30, 1983.

SUMMARY OF REMARKS

In summary, the design of the missile is essentially complete, flight worthiness of the missile has been demonstrated, and production of components for the first operational missiles has begun. As the missile transitions from a development to an operational configuration, ground and flight testing is scheduled to provide a level of confidence that operational requirements will be met. This testing will be done concurrently, however, with missile production and deployment activities with a corresponding risk of not meeting cost, schedule, or performance goals if unforeseen problems do occur.

This concludes my prepared remarks. I will be glad to answer any questions.

[The statement of Mr. Finley follows:]

PREPARED STATEMENT OF

HARRY R. FINLEY, ASSOCIATE DIRECTOR
NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION
AIR FORCE SUBDIVISION
UNITED STATES GENERAL ACCOUNTING OFFICE

Mr. Chairman and Members of the Subcommittee:

We are here today to discuss our work on the Peacekeeper (MX) Intercontinental Ballistic Missile System. The results of our work are preliminary and we have not had time to formally present a draft report to the Department of Defense for its comments.

In April 1983, the President's Commission on Strategic Forces recommended restructuring the intercontinental ballistic missile modernization efforts. A program was established consisting of three elements:

- Deployment of 100 Peacekeeper missiles in existing Minuteman missile silos.
- Development of a small ICBM and hard mobile launcher.
- Development of follow-on basing technology.

GAO reviewed these developments as part of its continued monitoring of major Department of Defense weapon acquisition programs. With respect to the Peacekeeper program, GAO followed up on cost, performance, and system development issues presented in a prior report on the Peacekeeper (GAO/NSIAD-84-112, dated May 9, 1984). Our review did not include Peacekeeper basing hardware development and production facility construction, or survivability in existing Minuteman silos. With respect to the small ICBM and follow-on basing technology programs, GAO reviewed the progress being made by the Air Force in developing

and implementing an acquisition strategy, in defining system operational concepts and designs, and in developing the information necessary to make a proper assessment of the feasibility and acceptability of the small ICBM in one or more survivable basing modes.

My comments will focus on the results of our work on the Peacekeeper program, however, because of its relationship to the Peacekeeper, several observations on the small ICBM might be of interest to the Subcommittee. Preliminary information available on the small ICBM suggests that the program will be costly, perhaps a \$50 billion life cycle cost for a 500 missile force on mobile launchers; that it will require a large personnel force of perhaps 20,000 to operate, maintain and secure the system; and that it will require access to from 4,000 to 28,000 square miles of land for basing. These costs and the small missile's operational effectiveness assume deployment of 100 Peacekeeper missiles with 1000 warheads.

PEACEKEEPER DEVELOPMENT

The Peacekeeper weapon system continues to progress toward deployment of the first 10 missiles by December 1986. The design of the Peacekeeper missile is essentially complete, and the results of ground testing provide confidence in the integrity of the missile design with added assurance to be provided through remaining tests. Flight worthiness of the missile has been demonstrated by the results of the first 7 Peacekeeper test flights and most problems experienced during those flights have been corrected. The flight test program is 35 percent complete with 13 more flights remaining in the development program to conclusively demonstrate the operational effectiveness and suitability of the Peacekeeper weapon system.

As the remaining 13 test flights are performed, the configuration of the missile will transition from a developmental to an operational configuration. Examples of some changes to be made in subsequent test flights include:

- The Stage IV propellant storage assembly tank used for the first 8 test flights is not suitable for operational use and a new propellant tank designed for operational use will be flown on flight test 9, in the third quarter of calendar year 1985.
- Development software used for the first 8 test flights will be replaced with operational ground and flight software beginning with flight test 9.
- The full capability of the warhead fuse to detonate at the altitude necessary for optimum accuracy will be first tested on flight test 9. The production design of the fuse will be first flown on flight test 10, in the fourth quarter of calendar year 1985.
- The composite substructure used on the MK 21 reentry vehicle will be replaced with an aluminum substructure on flight test 9.
- Several redesigned components of the guidance and control system will be first flown on flight 9, followed by the development program to conclusively demonstrate the test of the operationally configured inertial measurement unit on flight test 11. While most of the individual components of the guidance system will have already been flight tested, a fully operational configuration guidance and control system will not be flown until flight test 14, in the third quarter of calendar year 1986.

To meet the deployment date, the flight test program is being done concurrently with production and deployment activities. The Peacekeeper flight test program to date has shown

good performance and the Air Force plan to phase in operational components during development flight testing is not unusual. While problems during flight testing are not unexpected, we believe that the development and testing schedule must maintain the relative success experienced to date if the Air Force is to meet the congressionally mandated initial operational capability date of December 1986.

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be able to successfully attack the full spectrum of Soviet targets, including superhardened targets. This requires the missile to deliver warheads to intended targets and to inflict the desired level of damage. The Peacekeeper missile, with 10 MK 21 reentry vehicles, deployed near Warren Air Force Base in Wyoming, has the range needed to reach the most distant planned targets. As discussed in our 1984 report, reductions in missile range capability have occurred. We subsequently found that missile range capability is continuing to decline but only slightly with 1 percent excess range capability remaining.

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MISSILE ACCURACY

The accuracy achieved by the first 6 Peacekeeper test missiles has been significantly better than the design requirement directed by the Secretary of Defense. To be effective against the hardest Soviet silos, as currently estimated, the Peacekeeper must continue to achieve current demonstrated accuracy.

Conclusive demonstration that Peacekeeper will continue to have the higher accuracy awaits future test flights, some at extended ranges, with operationally configured reentry and guidance and control systems.

PROGRAM COSTS

The estimated cost for the Peacekeeper program in December 1994 was \$16.6 billion in 1982 dollars, or \$21.7 billion in then

year dollars. The current estimate has not changed since the first Peacekeeper program Selected Acquisition Report was submitted, for the period ending June 30, 1983.

In summary, the design of the missile is essentially complete, flight worthiness of the missile has been demonstrated, and production of components for the first operational missiles has begun. As the missile transitions from a development to an operational configuration, ground and flight testing is scheduled to provide a level of confidence that operational requirements will be met. This testing will be done concurrently, however, with missile production and deployment activities with a corresponding risk of not meeting cost, schedule, or performance goals if unforeseen problems do occur.

RISK LEVELS

Senator RUDMAN. Thank you very much. We appreciate your appearing here on relatively short notice.

The formal procedure with your report would have been to submit it to the people at DOD, where there would have been some discussion and revision, if necessary, and then you would have been ready to appear.

So, I do appreciate your willingness to appear here this morning.

Mr. Finley, were you in the room this morning during General Davis' and General Fornell's testimony?

Mr. FINLEY. Yes, sir.

Senator RUDMAN. Did you hear the line of questioning addressed to them, pertaining specifically to their assessment of the levels of risk involved, based on their experience in this field?

Mr. FINLEY. Mr. Chairman, I did.

Senator RUDMAN. Do you substantially agree with those answers or if you disagree, can you tell me why?

Mr. FINLEY. Mr. Chairman, the General Accounting Office would not be in a position to evaluate their answers. Our position is that challenges remain, and I believe the Air Force would agree.

Senator RUDMAN. What you are saying to me is that you can point out those risks and I think you do legitimately point them out, but that the expertise does not reside in GAO to assess those risks?

Mr. FINLEY. That is correct, Mr. Chairman.

Senator RUDMAN. General Fornell is the program manager, and General Davis is the SAC Commander. General Fornell has 27 years of experience in the field. I believe you would agree he is probably competent to assess those risks?

Mr. FINLEY. Yes.

Senator RUDMAN. He has assessed the risks and he says that they are low.

You would only agree that he is competent to answer that where GAO is not competent to answer it?

Mr. FINLEY. I would agree that he has expertise. I only point out that GAO would hope that he is correct in his assessment.

Senator RUDMAN. We all hope so. You know in this world we have to rely on somebody. I guess we will have to rely on General Fornell, who we hope is right. If he is wrong, you never know, he might find some other job interesting. [Laughter.]

Senator PROXMIRE. He could enter the U.S. Senate.

SUCCESS OF FLIGHT TEST PROGRAM

Senator RUDMAN. I believe you have characterized the authorized flight test program as being a reasonably successful flight test program?

Mr. FINLEY. To date, yes sir.

Senator RUDMAN. Have you compared it with your review of other ICBM flight test programs over the past 25 years?

Mr. FINLEY. It would not be substantially different except in its success to date.

Senator RUDMAN. Well, it seems to me that success to date is quite substantial. I wasn't talking so much about the procedures as I was about the conclusions.

Certainly, you would have to agree that its success to date is markedly above that of past programs. Isn't that correct?

Mr. FINLEY. Yes.

Senator RUDMAN. I suppose that is why General Fornell is willing to put his stars on the line to say what he said this morning.

Mr. FINLEY. I admire him.

EFFECT ON MX PROGRAM IF 1985 FUNDING DENIED

Senator RUDMAN. In your judgment, if you have a judgment, although you may not wish to answer the question, but in your judgment, Mr. Finley, what would be the impact on the MX Program if the 1985 production funding were denied by Congress?

I am talking impact, which is something you folks do a lot of for us.

Mr. FINLEY. I can report to you the current judgment of the Air Force. They believe it would be devastating.

I might ask Mr. Dinwiddie if he might want to elaborate.

Senator RUDMAN. That is fine.

Mr. DINWIDDIE. I think it is how you want to address the issue. There is a need for the money in 1985. There is a very tenuous supply line for the support of the program. In the case of some of the major contractors, they don't actually begin putting some of the missile components together until the fiscal year 1986 time-frame, but they need a continuing supply of the parts and subassemblies from the subcontractors and vendors to be able to do that work.

Senator RUDMAN. Thank you both very much.

I may have other questions for the record, but I think you have answered mine.

Senator Proxmire.

Senator PROXMIRE. Thank you very much, Mr. Chairman.

Mr. Finley, first I would like to say that I found the GAO to be extraordinarily accurate, honest, competent. I want to congratulate you for coming forward with a report which calls it as you see it.

I view this report, as I have said, about 90 percent favorable to the MX missile. But you do raise one or two questions.

TOTAL PROGRAM COST OF MX IN THEN-YEAR DOLLARS

What is your estimate of total program cost of the MX in then-year dollars? What are we going to have to appropriate?

Mr. FINLEY. We still believe the Air Force's estimate of \$21.6 billion is correct based on the latest available information. I will ask Mr. Dinwiddie to confirm that.

Mr. DINWIDDIE. The latest information we have from the program office is \$21.6 billion. The costs have been reviewed by an Air Force independent cost analysis team. They concluded that the costs are reasonable.

Our examination to date provides no basis to challenge that.

Senator PROXMIRE. Does that include all costs including pre-1983 costs?

Mr. DINWIDDIE. No; as we reported in last year's report, there was \$4.6 billion of cost incurred between 1979 and 1983 that is not included in the Peacekeeper Program cost estimate.

Senator PROXMIRE. My question was the total cost, including past, present, future and way back in this program. I take it that this would add \$4.6 billion to the \$21.6 billion and come up with \$26.2 billion?

Mr. DINWIDDIE. Yes, sir.

CONCURRENCY OF TESTING AND DEPLOYMENT

Senator PROXMIRE. The only troublesome issue you raise in your whole report is the issue of concurrency; in other words, having testing and deployment run together.

I can recall one of the people that some regard as our best Secretary of Defense, Mel Laird, used to deplore that and said that probably cost more than anything else, the fact we did not finish testing before we went ahead with production and deployment.

To what degree will the concurrency you refer to in testing and deployment pose risks of cost overruns or schedule slippage?

Mr. FINLEY. Senator Proxmire, I would like to start the answer to that and then let Mr. Dinwiddie finish it.

First of all, I would like to again point out, fortunately or unfortunately, this particular way of running a program is not unusual.

Senator PROXMIRE. That is one of the reasons why we have such a high cost in overruns, isn't it?

Mr. FINLEY. I am not prepared to answer that question here.

Senator PROXMIRE. You are a cautious fellow.

Mr. FINLEY. I am very cautious.

I am going to ask Mr. Dinwiddie to respond to the question.

Mr. DINWIDDIE. The genesis of the report that we are preparing here is to say that in the drive to get the 1986 IOC, the Air Force has had to put together a very success-oriented schedule with very limited margins for error.

They have been successful to date for the most part; there is no question about that. There is no reason to say that they won't have success in the future, but it is true that in test programs failures do occur.

Because of the success-oriented nature of the schedule, depending on the magnitude of those failures, they do not have time to have a major failure and catch up.

Senator PROXMIRE. Very good. At least that gives me a good general answer.

CHANGES IN DEVELOPMENT PROGRAM FOR OPERATIONAL READINESS

I talked about concurrency. In addition to that, you indicated a series of changes in the development program that must be made for operational readiness.

With respect to those changes, do you see any required changes causing a slowdown in the production schedule, postponing of deployment rate or increase in cost?

Mr. DINWIDDIE. The changes that we note are planned changes. The Air Force assures us that, even considering these changes, they are still going to meet their dates.

Senator PROXMIRE. Thank you very much.

Mr. Chairman, that is all.

Let me say I do hope you will use your strong influence with the chairman of the subcommittee to get some witnesses up here who are on the other side and who have the competence to give us the other view. I will give you the names.

Senator RUDMAN. I will say to the gentleman from Wisconsin that one such witness did contact the committee and we tried to contact him yesterday to get him to come this morning and add him as an additional witness from a very responsible organization. His phone did not answer. We tried a number of times.

In the interest of fairness, I want to put the following in the record. The chairman of the committee, who certainly is no proponent of this missile, but a strong opponent for reasons he believes are good and accurate, was asked by the subcommittee whether or not he wished to produce additional witnesses before the subcommittee from his point of view. He declined that offer.

Senator PROXMIRE. Let me make that offer.

Senator RUDMAN. Let the record show that I did not answer.

Let me say we have tried to be fair and we will certainly continue to be. I will discuss this with the chairman tonight and express your concern. If he feels there are other witnesses who can throw light rather than heat on this discussion, we will be very glad to invite them.

Senator SASSER.

Senator SASSER. Mr. Chairman, I have no questions at this time of these witnesses.

Senator RUDMAN. Thank you very much, Senator Sasser.

Senator CHILES.

Senator CHILES. Thank you, Mr. Chairman.

I understand that people needed to come to the committee and say they want to testify, the committee just didn't go out and search for anybody or sort of look. They just sort of came on the basis of who wanted to drop by and give their testimony?

Senator RUDMAN. Certainly in terms of the administration, we thought we would bring the evidence that would be the best, and the people who could best give that evidence.

We have thought that by asking the chairman of the committee, who is an opponent of the MX, he might want to produce witnesses. We did have one witness who indicated he wanted to testify. There has been no deliberate intention here to be unfair in how the hearing is conducted.

We do limited time. I want to thank all the members on this side for being here this morning.

Senator CHILES. As you know, there is some interest on our side. Maybe if you had contacted somebody on our side, we might have had additional witnesses.

Senator RUDMAN. I will certainly discuss that with the chairman. That is one of the great advantages of being the acting chairman.

Senator CHILES. Mr. Finley, and Mr. Dinwiddie, I want to thank you for appearing before the committee today. We do have some important decisions coming up on the MX and your input will be very valuable.

AIR FORCE RECEIPT OF GAO DRAFT

First, I think we all recognize the draft, the preliminary nature of the report. It is my understanding you have not received the Air Force's comments on it, but I believe the report has been available to the Air Force.

How long has the Air Force had your draft?

Mr. FINLEY. They have had a version of our draft for about a week. Mr. Dinwiddie can give you the exact date.

Mr. DINWIDDIE. We gave the program office a summary of our findings on February 28.

Senator CHILES. February 28? That is not 2 weeks.

If your report went through normal channels, it would not be available to Congress in its final form until after the March vote; is that correct?

Mr. FINLEY. That is correct. The MX study is part of a larger study of ICBM modernization.

Senator CHILES. Mr. Finley, I understand Mr. Dinwiddie has been close to this program for some time, so I might also ask him to comment on some of your preliminary findings before I get into any questions.

Mr. Dinwiddie, how long have you been conducting this ongoing audit?

Mr. DINWIDDIE. About 7 years.

Senator CHILES. So, you are pretty familiar with the program. I would like to get into some of your findings.

DEPLOYMENT OF MX MISSILES

When will deployment of the first flight of MX missiles begin and when will it be completed?

Mr. FINLEY. Missile assembly at the deployment site begins in May 1986 and the first 10 missiles are expected to be operational by the end of 1986.

POST DEPLOYMENT TESTS OF MX

Senator CHILES. Yesterday General Vessey indicated that the missile would be fully tested prior to deployment. It is my understanding that the current schedule of deployment tests indicate that at least four development tests will take place after deployment. Is that correct?

Mr. FINLEY. There are four development tests scheduled after initial deployment.

Senator CHILES. Was the schedule always designed this way?

Mr. FINLEY. I will have to check with Mr. Dinwiddie, but I believe, at the start of the full development program in 1979, the Air Force expected to have all 20 test flight tests completed prior to IOC.

Senator CHILES. So, they did plan originally to have all the flight tests before deployment.

Why was that changed?

Mr. DINWIDDIE. Really, some of the uncertainty in basing has been part of that. Going from the multiple, protective shelter basing to the current silo basing required facility modifications at Vandenberg that were not originally scheduled. That is part of the answer.

They also had some technical difficulties in getting to the January 1983 first test flight.

The third reason, of course, is Senator Hart's amendment which delayed the flight test program from January to June 1983.

RISKS INVOLVED IN FAILING TO COMPLETE TESTS

Senator CHILES. What is the risk involved in not completing all of the flight tests prior to the time that the missile is made operational?

Mr. FINLEY. Senator, generally it is not GAO's role to assess risk.

I might have Mr. Dinwiddie comment a little bit about what impact would occur if those four test flights were not successful, but without assessing the risk.

Mr. DINWIDDIE. Part of the risk is that originally, they wanted the 20 test flights before IOC. Without assessing the degree of risk when you reduce the test flights from 20 to 16 there is increased risk associated, but what the degree of risk is, I think the Air Force is better prepared to answer.

Senator CHILES. What happens if something goes wrong in one of the tests after you have made the missile operational?

Mr. DINWIDDIE. I would say it is like any other program. If you want it, you want it to be operationally ready, you would probably have to fix it.

Senator CHILES. What would be the cost involved in that?

Mr. DINWIDDIE. It would be speculative to say what it would be at this point in time. It would just have to be whatever the circumstances were at that point in time.

You would have to then look at that particular situation. At this point in time it is speculative to say.

Senator CHILES. If the test did not go right, then you might have to pull the missiles out of the silos?

Mr. FINLEY. That is always a possibility. The Air Force can tell you more about that.

PURPOSE OF TESTS

Senator CHILES. What is the purpose of these tests?

I think you are telling us that the test schedule as currently structured will not be able to fully verify the missile prior to deployment.

Mr. DINWIDDIE. The original purpose of the four test flights that have been moved beyond IOC was to verify the operational readiness of the system prior to IOC.

Some of the purposes that were in those tests have now been shifted to earlier tests. At least the original purpose of those test flight was to verify the operational readiness of the system prior to IOC.

Senator CHILES. So, they were to verify the operational readiness prior to the time it was actually placed in the silos as operational?

Mr. FINLEY. As originally planned.

Senator CHILES. In last year's report the GAO stated that the Air Force has developed a tight success-oriented schedule.

Is it my understanding that that means there is little room for error?

Mr. FINLEY. I believe that is a fair interpretation.

REMAINING PROBLEMS OF MX

Senator CHILES. Can you explain briefly to us what are some of the problems that we have left to overcome and how they are influenced by the development in production schedules?

Mr. FINLEY. Senator, I would like Mr. Dinwiddie to answer that question, but we would like to view them as challenges to the Air Force.

Mr. DINWIDDIE. The one outstanding problem that the Air Force is still developing corrective action for is, of course, the failure of extendable nozzle exit cone on the stage 3 motor. That particular device unfolds and provides greater thrust to stage 3. That device failed on flight test 3. The Air Force felt they had corrective action. It succeeded on the fourth, fifth, and sixth test flights and it failed again on the seventh test flight. The Air Force is investigating trying to devise a plan of action to correct the problem.

RELIABILITY AND AVAILABILITY OF MISSILE COMPONENTS

Senator CHILES. I understand you have, Mr. Dinwiddie, some concerns over the reliability and availability of some of the missile's components.

Could you elaborate on some of those concerns?

Mr. DINWIDDIE. I think when we talk about reliability, that is essentially the issue with this extendable nozzle exit cone. It is not a question whether it will work or not. It has been shown it will work.

The question is will it work every time you fly the missile. That is the one remaining issue that I would term a reliability issue.

SOFTWARE AND GUIDANCE CONTROL OF MX

Senator CHILES. What about the software and guidance control?

Mr. DINWIDDIE. Those are configuration changes which I would not characterize in the reliability realm.

In the other categories to which you are referring, they are essentially the transition from the developmental system to operational system and the gradual phasing in of operational realism.

EXPENDED FUNDS FOR MX

Senator CHILES. It has been indicated to me that as of January 31 this year less than \$150 million of the \$3 billion appropriated for MX production in fiscal years 1984 and 1985 has been expended.

To the best of your knowledge, is this an accurate estimate?

Mr. DINWIDDIE. Would you repeat your figures?

Senator CHILES. My understanding is that as of January 31 less than \$150 million of the \$3 billion appropriated has been expended?

Mr. DINWIDDIE. Yes, sir; of the \$2 billion for the procurement action itself, \$127 million has been expended.

Senator CHILES. If I understand obligations and expenditures correctly, obligations provide contractors with spending authority to begin work and expenditures are an indication of work completed.

STATUS OF FIRST 21 MISSILES

So what that data indicates is that so far as production is concerned, there is a lot of work left to do on the first 21 missiles. Is that correct?

Mr. FINLEY. Yes; I believe it does.

Senator CHILES. Please elaborate, if you can, on where we are on the first 21 missiles then.

Mr. DINWIDDIE. The inertial measurement unit for the guidance and control system sometimes referred to as the AIRS unit has entered into production. At this point in time, that is the only system, that is, end item component, that is in production.

By that I mean there are a number of contractors for BMO who are producing various major items for the system. The contractors for the propulsion stages and re-entry system components will be entering into production in the very near future.

Senator CHILES. We all want to keep our future production option open. That was the purpose of the long lead, hot-production-line provision in the Senate bill last year.

My information indicates to me that insofar as the major MX contractors are concerned, we will have several months before additional funding will be provided. Is that accurate?

Mr. DINWIDDIE. For most of the associate contractors, that is a correct statement.

Senator CHILES. How long will we have before the contractors run out of money?

Mr. DINWIDDIE. The major associate contractors right now, in terms of the \$1 billion that was given for long lead items, as indicated earlier for the missile, have not received any obligational authority at all, with minor exceptions.

For the 1985 production program the missile contractors themselves have yet to receive any money.

Senator CHILES. They have yet to receive any, so you are saying there is a billion dollars there that is available?

Mr. DINWIDDIE. So far, obligations against the \$1 billion went primarily for the basing-related hardware, and logistics contracts. That is primarily what the money was used for.

Senator CHILES. But could you answer the question of when they will need additional money?

Mr. FINLEY. According to the Air force, and I will let Mr. Dinwiddie follow up on this, they believe that they are going to run out of available money at the end of this month, and they need the additional \$1.5 billion.

Senator CHILES. What is your finding on that?

Mr. DINWIDDIE. I would only add to that what I added in terms of the 1984 buy. It is necessary to maintain the flow of parts and sub-assemblies from some very key vendors. But, in terms of the major contractors themselves and when they would actually begin the in-house manufacturing and assembly of all those components they are gathering together, they would not start until the fiscal year 1986 timeframe, with some exceptions.

Senator CHILES. I think my time has expired.

Senator RUDMAN. If the Senators need additional time, we can continue. I was hoping to conclude the hearing by 12:30, but I don't want to cut you off.

Senator CHILES. I thank the Senator for his generosity.

SUCCESS-ORIENTED TEST PROGRAM

Senator RUDMAN. I have only one other question and that is to correct, in my own mind at least, what appears to be not conflict in testimony, but lack of authority in dealing with the term "success-oriented test program," which is what the Air Force calls this.

According to General Fornell and General Davis this morning, this is a success-oriented program, meaning it should depend on a great degree of success. In fact, however, they have built in certain time spans for fixes due to failures that they expect to occur.

It is not a 100-percent success-oriented test.

Mr. FINLEY. You are correct, depending on what goes wrong, there is some time built into the system.

Senator RUDMAN. I want to thank both of you for very fair and accurate testimony. I would expect no less than that from GAO. We thank you for being here on very short notice.

CONCLUSION OF HEARING

The subcommittee will stand in recess subject to the call of the Chair.

[Whereupon, at 12:45 p.m., Friday, March 8, the hearing was concluded and the subcommittee was recessed, to reconvene at the call of the Chair.]

